ATTACHMENT A

APPEAL

Krista McIntyre
kkmcintyre@stoel.com
Christopher Pooser
wcpooser@stoel.com
STOEL RIVES LLP
101 S. Capitol Blvd., Suite 1900
Boise, Idaho 83702
Telephone: (208) 389-9000
Facsimile: (208) 389-9040

Attorneys for the J.R. Simplot Company

IDAHO BOARD OF ENVIRONMENTAL QUALITY

The J.R. SIMPLOT COMPANY Air Quality Tier I Operating Permit and Permit to Construct No. 077-00006 **(Don Siding Plant),** Petitioner, v. THE IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY, a Political Subdivision of the State of Idaho, Respondent.	Docket No. 010-0307 PETITION FOR A CONTESTED CASE PROCEEDING, PETITION FOR A DECLARATORY RULING, AND REQUEST FOR A STAY OF PERMIT CONDITIONS

The J.R. Simplot Company ("Simplot"), by and through its attorneys of record, respectfully petitions the Idaho Board of Environmental Quality (the "Board") for a contested case proceeding, pursuant to Idaho Code Section § 39-107(5) (2002) and the Rules of Administrative Procedure before the Board of Environmental Quality, IDAPA 58.01.23 *et seq.* (the "Administrative Procedure Rules"). Simplot seeks review of Air Quality Tier I Operating Permit No. 077-00006, issued December 24, 2002 (the "Don Tier I Permit") by the Idaho Department of Environmental Quality ("IDEQ") to Simplot's phosphate fertilizer manufacturing

plant located in Pocatello, Idaho (the "Don Plant"). Simplot also requests a stay of certain permit conditions and requirements pending the resolution of this proceeding.

I. INTRODUCTION AND BACKGROUND

IDEQ issued the Don Tier I Permit to Simplot on December 24, 2002. *See* the Don Tier I Permit attached as **Exhibit A** and the accompanying Technical Memorandum attached as **Exhibit B.**[1] The issuance of the permit followed seven years of collaborative effort on the part of Simplot to obtain a workable Tier I operating permit that contained environmentally significant and appropriate conditions.[2] On July 26, 1995, Simplot submitted an application for a Tier I operating permit for the Don plant, pursuant to Title V of the Clean Air Act ("CAA"), 42 U.S.C.A. §§ 7661 – 7661f, and the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01 *et seq.* ("Idaho Air Rules"). After submitting the application, Simplot participated for several years in a group that included IDEQ and members of the regulated community to develop general principles for the Tier I operating permit program in Idaho.

Simplot's participation in this collaborative work, as well as the company's individual efforts, resulted in the development of several drafts of a Tier I operating permit for the Don plant between 1996 and 1999. Communication between the agency and Simplot was frequent and intense in effort to produce an acceptable Tier I operating permit. IDEQ and Simplot

---

[1] Each **Exhibit** referenced in this petition is attached hereto.

[2] Simplot is an agribusiness corporation engaged in food processing, fertilizer manufacturing, agriculture, and related businesses. Simplot owns and operates numerous facilities around the United States, including facilities that, like the Don Plant, are major sources and have Title V permits. Simplot's environmental management team is knowledgeable and experienced in the drafting and implementation of air quality permits for industrial facilities. Over the past twenty (20) years, Simplot has negotiated and obtained pre-construction review and operating permits for the Don Plant. During the course of development of the Don Tier I Permit, Simplot made this reservoir of experience and expertise available to the IDEQ in the form of comprehensive permit applications, draft technical memoranda, and draft operating permits for IDEQ to review. In addition, Simplot representatives provided technical assistance in response to numerous staff questions raised over the past seven years of operating permit discussions.

exchanged the numerous draft operating permits and related supporting information. The development of the draft permits was accompanied by numerous formal and informal communications between Simplot and IDEQ aimed at producing a Tier I permit that was environmentally protective, reasonable from the operations perspective, and in conformity with Title V of the CAA.

Despite those time consuming and cooperative efforts, IDEQ abandoned the 1996-1999 drafts of a Tier I operating permit for the Don plant and started anew on yet another draft operating permit for the Don Plant in 1999. At IDEQ's request, Simplot updated the 1995 application with additional information submitted on October 14, 1999, and June 30, 2000. At this time much of the communication between IDEQ and Simplot ceased and it appeared that the value of prior years' work would be ignored by IDEQ.

IDEQ issued a draft Tier I permit for the Don plant for public comment on August 31, 2002. At the close of the public comment period on September 30, 2002, IDEQ held a public hearing in Pocatello. Simplot submitted extensive written comments to IDEQ on September 30, 2002. *See* Simplot's written comments attached as **Exhibit C**. On November 8, 2002, IDEQ provided a copy of the permit to the Environmental Protection Agency ("EPA"). To Simplot's knowledge, EPA made no comments, whereupon IDEQ issued the Don Tier I Permit on December 24, 2002.

The Don Tier I Permit incorporates the terms and conditions of a number of existing New Source Review permits (*i.e.*, Permits to Construct or PTCs) and an operating permit.[3] PTCs issued for the Don plant include: the Babcock and Wilcox Boiler, PTC No. 077-00006 (issued June 16, 1995); the East Dry Bulk Station - Granulation No. 3 Loadout, PTC No. 077-00006

[3] The CAA's NSR program is a set of rules governing issuance of permits for construction or modification of air emission sources.

(issued September 13, 1995); the Defluorination Project - Granulation No. 3 Plant, PTC No. 077-00006 (issued November 12, 1999); the Boiler Replacement, PTC No. 077-00006 (issued September 20, 2000); the 300 Sulfuric Acid Plant Restoration Project, PTC No. 077-00006 (issued June 15, 2001); and the Granulation No. 3 Plant Upgrade, PTC No. 077-00006 (issued December 12, 2001). IDEQ issued a Tier II operating permit, Operating Permit No. 077-00006 on December 3, 1999 (the "1999 Operating Permit"). *See* the 1999 Operating Permit attached as **Exhibit D.**

As discussed in greater detail below, Simplot objects to numerous conditions of the Don Tier I Permit and timely submits this petition for a contested case proceeding. Simplot further requests a stay of the challenged permit conditions.

II. PETITION FOR A CONTESTED CASE PROCEEDING

A. General Comments on Title V of the Clean Air Act and the Appropriate Process for developing a Tier I Operating Permit.

IDEQ requires major stationary sources to obtain Tier I operating permits under the authority of Title V of the CAA and the Idaho Environmental Protection and Health Act. *See* I.C. §§ 39-105(3)(a) and 39-115 (Supp. 2002). The purpose of Title V is relatively simple—to incorporate requirements currently applicable to a major stationary source into a single, comprehensive document. *See* 57 Fed. Reg. 32250, 32251 (July 21, 1992) (explaining that the Title V program "will generally clarify, in a single document, which requirements apply to a source and, thus, should enhance compliance with the requirements of the Act."). The "applicable requirements" derive from the terms and conditions established in existing preconstruction or operating permits and other standards or requirements provided for in the Idaho Air Rules. *See* IDAPA 58.01.01.008.03.

EPA has identified two concepts crucial to accomplish Title V's purpose of developing a comprehensive statement of a source's air pollution control obligations. First, IDEQ cannot impose new substantive requirements or limitations on a major stationary source. EPA has stated:

> [O]perating permits required by title V are meant to accomplish the largely procedural task of identifying and recording existing substantive requirements applicable to regulated sources and to assure compliance with these existing requirements. Accordingly, operating permits and their accompanying applications should be vehicles for defining existing compliance obligations rather than for imposing new requirements or accomplishing other objectives.

White Paper for Streamlined Development of Part 70 Permit Applications ("White Paper No. 1") at 1 (EPA June 10, 1995). As a result, Title V requires that IDEQ take applicable requirements and gather those requirements into a common document—a Tier I operating permit.

Second, and equally important, is the recognition that Tier I operating permits contain "only environmentally significant" applicable requirements and emissions limits, standards and other terms, as needed, to assure compliance with those requirements. *See* White Paper No. 1 at 12 and 13-14. Because Title V requires the bundling of existing requirements, there may be existing permit conditions that are obsolete, irrelevant, conflicting, or redundant, and result in extraneous, out-dated, or otherwise environmentally insignificant and inappropriate conditions. As EPA has stated:

> emissions units at a stationary source may be subject to several parallel sets of requirements. This can result in some of the requirements being redundant and unnecessary as a practical matter, even though the requirements still legally apply to the source. In cases where compliance with a single set of requirements effectively assures compliance with all requirements, compliance with all elements of each of the overlapping requirements may be unnecessary and could needlessly consume resources.

White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program ("White Paper No. 2") at 2 (EPA March 5, 1996). In addition, "[n]ew source review permits are

[] likely to contain other terms that are not patently obsolete or irrelevant, but that the source and permitting authority agree are nevertheless extraneous, out-dated, or otherwise environmentally insignificant and inappropriate for inclusion in a federally-enforceable permit." *See* White Paper No. 1 at p. 14.

Title V addresses those environmentally insignificant and inappropriate conditions, as the permit issuance process provides IDEQ with an "excellent opportunity" to make appropriate revisions to existing permitting requirements, contemporaneously with the issuance of the Title V permit. *See* White Paper No. 1 at 13. According to EPA, "[b]y conducting a simultaneous revision to the NSR permit,[4] the permitting authority would be revising the 'applicable NSR requirement' for purposes of determining what must be included in the part 70 permit.". *See id.* Consequently, Title V offers the occasion and procedure to streamline a stationary source's existing requirements—not confuse them—through the issuance of a Tier I operating permit.[5]

As explained below, IDEQ has fashioned many terms and conditions in the Don Tier I Permit that are either new substantive requirements or are obsolete, irrelevant, conflicting, or redundant, and that are ultimately environmentally insignificant and inappropriate. Simplot requests that the Board revise the Don Tier I Permit to conform the permit to the requirements of Title V of the CAA, EPA guidance and the Idaho Air Rules. Simplot's specific objections to the Don Tier I Permit are set forth below.

---

[4] A NSR permit refers to existing permits, whether a preconstruction or operating permit, in which "New Source Review" applicable requirements reside. *See* White Paper No. 1 at 13, n. 2.

[5] Both the CAA and the Idaho Air Rules provide authority for this streamlining approach—CAA § 504(a) and IDAPA 58.01.01.322 require Tier I operating permits to contain emissions limits and standards and other terms, as needed, to assure compliance with applicable requirements. *See* White Paper No. 2. at 17.

B. Specific Objections to Terms and Conditions of the Don Tier I Permit.

1. The Tier I Permit requires the use of Inappropriate Test Methods for determining Compliance with PM_{10} Emission Limits.

In Section 2.15 and Table 2.2 of Tier I Permit, IDEQ identifies EPA Method 5 and Method 202 as the test methods for measuring PM_{10} emissions from wet stacks and Methods 201a and 202 for dry stacks. *See* **Exhibit A**. Simplot is required to use the methods during PM_{10} compliance tests on the Ammonium Sulfate Plant (Section 4), Granulation No. 1 Process (Section 7), Granulation No. 2 Process (Section 8), Granulation No. 3 Process, East Bulking Station, and Defluorination Process (Section 9), the Phosphoric Acid Manufacturing Plants (Section 12), the Reclaim Cooling Tower Cells Plant/Evaporative Cooling Towers (Section 14), and the No. 300 Sulfuric Acid Plant (Section 16). *See* **Exhibit A** at Conditions 4.11, 7.18, 8.18, 9.17, 12.13, 14.6, and 16.11.3.

To demonstrate compliance with existing PM emission limits, Simplot has historically performed periodic performance tests using EPA Method 5. EPA Method 5 is an established compliance method measuring PM concentrations. *See, e.g.*, IDAPA 58.01.01.681 (fuel burning equipment); IDAPA 58.01.01.700.04 (process weight limitations); IDAPA 58.01.01.710.07 (process equipment); IDAPA 58.01.01.786.03 (incinerators); IDAPA 58.01.01.824.02 (kraft pulp mills). The Idaho Air Rules make no provision for the use of Methods 201a and 202. *See generally* IDAPA 58.01.01 *et seq*. In effect, PM emission inventory estimates in Idaho have long been developed using Method 5.

In addition, in collaborative effort initiated in March 2001, Simplot assisted IDEQ in the development of a PM_{10} State Implementation Plan ("SIP") for Pocatello. On March 23, 2001, IDEQ requested that Simplot obtain emission rates for PM_{10} and $PM_{2.5}$ from emission sources at the Don Plant, using Method 5. *See* IDEQ's letter to Simplot dated March 23, 2001 attached as

Exhibit E. At considerable expense and effort, Simplot performed emission tests and generated PM_{10} and $PM_{2.5}$ emissions data using Method 5. *See* Simplot's letters to IDEQ dated April 24, 2001, and July 30, 2001, attached as **Exhibit F**.

As a result, Simplot has used Method 5 to measure and demonstrate compliance with the existing PM_{10} emission limits and has relied on IDEQ's use of Method 5. The introduction of additional test methods is inconsistent with the manner in which PM/PM_{10} emissions were estimated and emission limits developed.[6] The new requirement that Simplot must determine compliance with PM_{10} emission limits using Methods 201a and 202 amounts to more stringent and inappropriate testing requirements and, consequently, new substantive requirements. Imposing new testing requirements is inappropriate to demonstrate compliance with emissions limitations that were developed using the original reference tests. Methods 201a and 202 will measure PM using a methodology that has not been previously incorporated into emission inventory estimates.

Consequently, Simplot cannot be expected to demonstrate compliance with a revised set of test methods that differ from the emissions estimating method used to develop the emission limitation. Moreover, IDEQ has no authority under the Idaho Air Rules to impose new test methods as part of the Draft Permit. Simplot requests that IDEQ remove all reference to EPA Methods 201a and 202 in Condition 2.15 and Table 2.2.

2. Condition 2.15 and Table 2.2 should identify Alternative Test Methods.

EPA has approved numerous test methods for measuring concentrations of pollutants from air emissions sources, such as the Don plant. These approved test methods, set forth at 40 C.F.R. Part 60, Appendix A, are based upon considerable technical analysis and evaluation. For

[6] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment Nos. 14 and 34.

certain pollutants, EPA determined that several different methods or variations on methods may be appropriate. Nonetheless, IDEQ refers to only one approved method for the pollutants identified in Condition 2.15 and Table 2.2 of the Don Tier I Permit. In addition, several of the methods identified by IDEQ in Table 2.2 are not necessarily the most commonly used, most easily performed, or most precise. For example, IDEQ refers Simplot to Method 6 for sulfur dioxide ("SO_2") testing; however, EPA Method 6C is more commonly used because it is an instrumental method that is typically more precise and relatively easy to perform.

Simplot requests that Condition 2.15 and Table 2.2 be modified as follows: for NO_x, EPA Methods 7, 7A, 7B, 7C, or 7D are approved; and for SO_2, EPA Methods 6, 6A, 6B, or 6C are approved. Although in a footnote to Table 2.2, IDEQ states that alternative methods may be approved by IDEQ, this additional review and process is unwarranted where an alternative test method is already approved by EPA and established in 40 C.F.R. Part 60, Appendix A. Requiring addition administrative review for approved methods only increases the burden to Simplot and wastes limited IDEQ resources.

3. The Requirement to Monitor Citizen Complaints for Fugitive Emissions and Odor are New Applicable Requirements.

Conditions 2.1 and 2.5 of the Don Tier I Permit require Simplot to take reasonable precautions to control fugitive dust and to prevent the emission of odorous gases, liquids, or solids, respectively. *See* **Exhibit A**. In order to assure compliance with those requirements, IDEQ requires Simplot to maintain records of all fugitive dust and odor complaints received. *See id.*, Conditions 2.3 and 2.6. Additionally, Simplot must "take appropriate corrective action as expeditiously as practicable," after receiving a meritorious or valid complaint. *See id.* To support these requirements, IDEQ cites its general gap-filling authority under IDAPA 58.01.01.322.06, 322.07 and 322.08. Those provisions do not authorize the monitoring of citizen

complaints. The monitoring of citizen complaints amounts to a new applicable requirement. Simplot requests that Conditions 2.3 and 2.6 be deleted.[7]

4. Weekly Facility-Wide Inspections of Fugitive Dust and Visible Emissions are Unnecessary.

Conditions 2.4 and 2.8 require Simplot to conduct facility-wide inspections for fugitive dust and visible emissions, respectively, on a weekly basis. *See* **Exhibit A**. These conditions are unreasonable and should be revised as requested below.[8]

a. Weekly fugitive dust inspections are not warranted.

Simplot requests that Condition 2.4 be revised to either delete or reduce the frequency of inspections of potential sources of fugitive emissions. The requirement to conduct weekly inspections is a new substantive requirement; no provision of the Idaho Air Rules allows for inspections on a weekly basis. Moreover, IDEQ has offered no explanation to justify weekly inspections. Simplot requests that the Board either delete the condition or reduce the frequency of inspections.

b. Weekly visible emission inspections are unreasonable.

Simplot requests the following revisions to Condition 2.8. First, the condition should be revised to provide that Simplot must conduct facility-wide inspections of "potential *point* sources of visible emissions." Under the Idaho Air Rules, visible emission must be controlled from "any *point* of emission." *See* IDAPA 58.01.01.625 (emphasis added). Second, Simplot requests that Condition 2.8 be revised to state that water vapor, nitrogen oxides, and chlorine gas are excluded from the see/no see evaluation. Rule 625.03 explicitly states that visible emission standards do

[7] *See* **Exhibit C; Exhibit B**, Appendix F at Response to Comment Nos. 16 and 17.
[8] *See* **Exhibit C; Exhibit B**, Appendix F at Response to Comment Nos. 17 and 19.

not apply to "when the presence of uncombined water, nitrogen oxides and/or chlorine gas are the only reason(s) for the failure of the emission to comply with the requirements of this rule."

Third, Condition 2.8 should be revised to exclude sources which are subject to source-specific visible emission inspection requirements under the Don Tier I Permit. *See, e.g.*, **Exhibit A**, Conditions 4.11.2, 7.18.3, 8.18.3 and 9.17.1. Requiring Simplot to comply both with Condition 2.8 and source-specific requirements is unnecessary and burdensome. Finally, because Simplot is subject to source-specific visible emission inspection requirements, the weekly schedule of Condition 2.8 should be revised to a less frequent monitoring schedule.

5. Repeating the Full Content of Applicable Rules is Unnecessary and Unreasonable.

In Condition 2.9, IDEQ includes excess emission requirements inserted in full, essentially copying the requirements set forth in the Idaho Air Rules in IDAPA 58.01.01.132 – 136. *See* **Exhibit A** at Condition 2.9. In numerous other instances, IDEQ has included lengthy applicable New Source Performance Standards ("NSPS") requirements from 40 C.F.R. Part 60 and New Emission Standards for Hazardous Air Pollutants ("NESHAPs") requirements from 40 C.F.R. Parts 61 and 63. *See* **Exhibit A**, Conditions 5.15 – 5.22.11, 7.14 – 7.19, 7.25 – 7.27, 8.14 – 8.17, 8.19, 8.23 – 8.27, 10.5 – 10.8, 11.5, 11.7.1, 12.8 – 12.11, 12.12.1 – 12.12.2, 15.7 – 15.10, 15.13, 16.10, 17.7, and 17.11. Including the full content of these rules in the Tier I Permit is unnecessary and unreasonable.[9] While Simplot does not object to the applicability of those requirements, there is no practical need for the lengthy content of those conditions.

Rather than inserting the entirety of the excess emission, NSPS and NESHAP requirements in the Tier I Permit, Simplot requests that the Board revise the conditions to simply refer to the applicable requirement and a permittee's compliance obligations under those

[9] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 40.

requirements. IDEQ followed this approach in Conditions 12.15 – 12.20. *See* **Exhibit A.** This approach is not novel and was followed by the Wyoming Department of Environmental Quality in a Title V permit issued to SF Phosphates Limited Company for its Rock Springs Fertilizer Complex.[10] *See* excerpts from the Rock Springs Title V permit attached as **Exhibit G.** Simply citing the relevant portions of applicable requirements from the Idaho Air Rules, NSPS, and NESHAPs by reference will prevent Simplot from having to submit permit amendment applications to amend the Don Tier I Permit in the event that the rules are revised.

Simplot requests that the Board revise Conditions 2.9, 5.15 – 5.22.11, 7.14 – 7.19, 7.25 – 7.27, 8.14 – 8.17, 8.19, 8.23 – 8.27, 10.5 – 10.8, 11.5, 11.7.1, 12.8 – 12.11, 12.12.1 – 12.12.2, 15.7 – 15.10, 15.13, 16.10, 17.7, and 17.11 to simply reference the applicable requirement.

6. The General Requirement to Monitor and Record Throughput Rates is Vague and Unreasonable.

Condition 2.23.1 of the Don Tier I Permit requires Simplot to obtain and keep process and equipment information regarding "the throughput rates for each material flow direction and for each piece of process equipment." *See* **Exhibit A.** Although this condition derives from the 1999 Operating Permit, it is unworkable and provides data that is environmentally insignificant.[11] *See* **Exhibit D**, Monitoring, Reporting and Special Studies, Condition 3.1.1 (1999 Operating Permit). Despite the presence of hundreds of pieces of equipment at the Don Plant, IDEQ fails to specify the equipment subject to Condition 2.23.1. Moreover, material throughput monitoring should only apply to certain equipment and should be specified in the applicable source-specific sections of the permit. Consequently, this condition is vague, enforceable, and unreasonable. Simplot requests that Condition 2.23.1 be deleted.

---

[10] Simplot is part owner of SF Phosphates Limited Company, which is a partnership between Simplot and Farmland.

[11] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 27.

7. Several Emission Sources at the Don Plant are no Longer in Operation and should be Deleted from the Tier I Permit

The No. 100 and No. 200 Ammonia Plants (Section 3) and the Nitric Acid and Nitrogen Solutions Plants and Associated Handling Facilities (Section 11) are no longer in operation and will not resume operation. Sections 3 and 11 are thus obsolete.[12]

Operation of the Ammonia Plants and Nitric Acid Plant was discontinued in August, 2002. Simplot informed IDEQ of the shutdowns in writing on August 20, 2002, and October 4, 2002. *See* the August 20, 2002 letter attached as **Exhibit H** and the November 4, 2002 letter attached as **Exhibit I.** As discussed, as part of the process for the issuance of a Tier I operating permit, IDEQ is able to revise existing permits to address obsolete and environmentally insignificant conditions. Simplot requests that the Board delete Sections 3 and 11 so that the terms and conditions of the Don Tier I Permit are consistent with and reflect the current operations of the facility.

In addition, Simplot requests that the Board bank the reduction in emissions as Emission Reduction Credits ("ERCs") pursuant to IDAPA 58.01.01.460 and 461. Because of the shut down of the Ammonia Plants and the Nitric Acid Plant, the Don plant will obviously experience the reduction of emissions. Pursuant to Rule 461, Simplot applied for ERCs on October 4, 2002, and supplied data concerning the emission reductions at that time. *See* **Exhibit I.** Accordingly, Simplot requests that the Board, in addition to deleting Sections 3 and 11, add language to the Don Tier I Permit which implements the ERCs and establishes that the Ammonia Plants and the Nitric Acid Plant will no longer be operated.

[12] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 28.

8. The Tier I Permit prescribes Erroneous Emissions Limits for Numerous Sources.

Throughout the Tier I Permit, IDEQ has prescribed emission limits that are incorrect based on emission factor changes.[13] Examples include Condition 4.5 (CO limits should be 0.16 lb/hr and 0.7 t/yr); Condition 4.6 (NOx limits should be 0.17 lb/hr and 0.7 t/yr); Condition 6.1 (PM limits should be 0.49 lb/hr and 2.2 t/yr); Condition 6.2 (PM_{10} limits should be 0.49 lb/hr and 2.2 t/yr); Condition 6.6 (VOC limits should be 0.36 lb/hr and 1.6 t/yr); Condition 7.4 (NO_x should be 2.5 lb/hr and 11.0 tpy); Condition 7.5 (CO limits should be 0.87 lb/hr and 3.8 tpy); Condition 7.6 (SO_2 limits should be 0.009 lb/hr and 0.04 tpy); Condition 8.4 (the emission limits for NO_x should be 1.8 lb/hr and 7.6 tpy); Condition 8.5 (CO limits should be 0.60 lb/hr and 2.7 tpy); and Condition 8.6 (SO_2 limits should be 0.006 lb/hr and 0.03 tpy).[14] *See* **Exhibit A.**

Those emission limits were first prescribed in 1984 based on current emission factors available at the time, such as AP-42. Since 1984, more accurate emission factors have been developed. For instance, the applicable section of AP-42 was updated in 1995. Simplot requests that the Board revise these emission limits using more current and correct emission factor and amend the permit accordingly.

9. Including Process Weight Limits for PM Emissions is Unnecessary.

For many sources at the Don plant, IDEQ has included the process weight limitation to limit PM emissions. *See* **Exhibit A**, Conditions 4.2, 7.1.2, 14.1.2, 14.6.2, 16.3.2, and 17.4. Because the PM emission limits applicable to the sources are more stringent than the process weight limitation, there are no monitoring or compliance demonstration requirements tied to process weight. *See* **Exhibit B**, Sections 6.2.2 and 14.7.2; **Exhibit A**, Tables 4.2, 14.2, 16.3, and Table 17.4. Simplot requests that the Board add language to Conditions 4.2, 7.1.2, 14.1.2,

[13] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 31.
[14] This list is non-exclusive as additional inaccurate emission limits may exist.

14.6.2, 16.3.2, and 17.4 stating that monitoring and compliance demonstrations with the process weight are not required.[15] In addition, Simplot requests that Table 7.2 be revised to accurately state that no monitoring and record keeping requirements are applicable to demonstrate compliance with Condition 7.1.2.

10. Monitoring Requirements for Emission Control Equipment are New Substantive Requirements.

a. Conditions 4.15 and 4.16 are new applicable requirements.

In Condition 4.15, IDEQ requires Simplot to "install and maintain indicators" which measure the fluid flow rate to the Ammonium Sulfate Plant scrubber. *See* **Exhibit A.** Under Condition 4.16, Simplot must also "install and maintain indicators" to monitor the pressure drop across each scrubber. *See id.* The underlying applicable requirement from which these conditions are derived, however, requires Simplot to "monitor" those parameters "[i]f needed." *See* **Exhibit D**, Condition 4.1 (1999 Operating Permit). The requirements to install and maintain indicators measuring the flow rate and pressure drop are new imposed in the Don Tier I Permit for the first time. In addition, there has been no determination that monitoring the fluid flow rate and pressure drop are necessary.

Conditions 4.15 and 4.16, thus, impose new substantive requirements.[16] Simplot requests that the Board revise the conditions consistent with the applicable requirement and state that the monitoring of the parameters is required "if needed."

b. Conditions 7.13 and 8.13 are new applicable requirements.

Conditions 7.13 and 8.13 of the Don Tier I Permit state that Simplot must monitor the pressure drop across the baghouses for the Granulation No. 1 Process and Granulation No. 2

---

[15] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment Nos. 32, 59, and 71.
[16] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 33.

Process, respectively. *See* **Exhibit A.** Although IDEQ cites the 1999 Operating Permit as the basis for these requirement, no such underlying provisions exist in that permit. Conditions 7.13 and 8.13 are new substantive requirements and should be deleted accordingly.[17]

11. Annual Source Testing to Demonstrate Compliance with PM/PM_{10}, SO_2 and NO_x Emission Limits is Inappropriate and Unreasonable.

a. During the Development of the Don Tier I Permit, IDEQ stated that compliance testes should be conducted once every five (5) years.

In Conditions 4.11.5, 7.18.4, 8.18.4, 9.17, and 12.13.1, IDEQ requires Simplot to conduct compliance tests within 12 months of, or 12 months prior to, issuance of this permit to demonstrate compliance with PM and PM_{10} hourly emission limits. *See* **Exhibit A.** Thereafter, Simplot is required conduct additional compliance tests "once per annum." *See id.* Condition 14.8, likewise, requires annual testing of cooling tower cells. *See id.* at 79. Conditions 16.11, 16.11.1 (SO_2 and H_2SO_4), 16.11.2 (NO_x), 16.11.3 (PM_{10}) and 17.10 (SO_2 and H_2SO_4) also require annual compliance testing.

According to representations made by IDEQ during the Tier I permitting process, the schedule for compliance testing was to be structured on a tiered basis, which dictates the frequency of compliance tests based upon test results.[18] *See* the May 15, 2000 e-mail from Harbi Elshafei to Brian Patterson attached as **Exhibit J.** According to those representations, following the initial compliance test, if emissions measured less than 75% of the permitted emission limits, no further testing would be required. Testing would be required in the third year of permit issuance if emissions measured during the tests were greater than 75% but less than or equal to 90% of the permitted emission limits. *See* **Exhibit J.** If test results indicated that emissions were greater than 90% of the permitted emission limits, performance testing would be required

[17] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 44.
[18] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 36.

annually. This approach was taken in Tier I Operating Permit No. 067-00017, issued November 18, 2002, for Simplot's potato processing facility located in Heyburn, Idaho (the "Heyburn Tier I Permit"). *See* excerpts from the Heyburn Tier I Permit attached as **Exhibit K**. The tiered approach was also followed in Condition 9.17.6. *See* **Exhibit A**.

Simplot requests that Conditions 4.11.5, 7.18.4, 8.18.4, 9.17, 12.13.6, 14.8, 16.11.1, 16.11.2, 16.11.3 ,and 17.10 be revised consistent with the representations made during the Tier I permitting process and with the Heyburn Tier I Permit and Condition 9.17.6.

b. Performance testing for NO_x emissions is no longer applicable.

IDEQ requires Simplot to conduct annual performance tests on the Nitric Acid Plant to determine compliance with NO_x limits in Condition 11.7.1. *See* **Exhibit A**. As indicated earlier, Simplot no longer operates the Nitric Acid Plant and has requested that Section 11 be removed from the Don Tier I Permit entirely. *See supra*, § II.B.7 of this Petition.

12. Potential Future Requirements should be Removed from the Tier I Permit.

The Tier I Permit includes several conditions that are irrelevant and unnecessary at this time but that may become applicable in the future.[19] *See* **Exhibit A**, Conditions 9.24, 10.3 – 10.4.4. Those conditions are speculative and confuse Simplot's obligations under the Tier I Permit unnecessarily and unreasonably. For instance, Condition 9.24 requires Simplot to comply with 40 C.F.R. Part 63 Subpart BB immediately, whenever ammonia is introduced into the Granulation No. 3 Plant. Simplot is unable to introduce ammonia into the Granulation No. 3 Plant without physically changing the plant and would have to submit to the preconstruction review process to do. In Conditions 10.3 and 10.4, IDEQ requires Simplot to follow applicable

[19] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment Nos. 14, 45, 51 and 52.

closure requirements in the event the Gypsum Stack is closed. Simplot has no intention to close the stack in the next five (5) years.

Under Idaho's Air Rules, Tier I permits are subject to renewal every five (5) years. *See* IDAPA 58.01.01.369. In addition, Tier I permits can be reopened for cause, *see* IDAPA 58.01.01.386, and can be revised. *See* IDAPA 58.01.01.382 and 383. If in the future Simplot chooses to introduce ammonia to the Granulation No. 3 Plant or close the Gypsum Stack, it may be subject to new applicable requirements. Until that time, those conditions are unnecessary and unjustified. Simplot requests that its compliance obligations be clear in the Tier I Permit and that the inapplicable conditions be removed from the Draft Permit.

13. Condition 14.4 contains an Erroneous Prohibition.

Condition 14.4 of the Tier I Permit states that liquid effluent from a wet scrubbing device installed to control emissions from process equipment cannot be introduced into an evaporator cooling tower. *See* **Exhibit A.** This requirement derives from 40 C.F.R. § 63.602(e). In Section 6.8.1 of the Technical Memorandum, IDEQ wrongly interprets this prohibition to include to decanted water: "Water used to transport gypsum to the gypsum stack is decanted and recycled back to the process to be used as process water. The decanted water cannot be fed into the Reclaim Cooling Tower." *See* **Exhibit B.** This misstatement could lead to confusion regarding compliance with Condition 14.4 and 40 C.F.R. § 63.602(e).[20]

Simplot feeds decanted water into the basin of the Reclaim Cooling Tower and then into the Cold Pit. The decanted water, however, is not scrubber process water. Scrubber water is added to the gypsum thickener and combined with a slurry, which is then processed through the gypsum stack. At this point, decanted water is introduced into the cooling tower basin.

[20] *See* **Exhibit C; Exhibit B,** Appendix F at Response to Comment No. 60.

Condition 14.4 and 40 C.F.R. § 63.602(e) do not prohibit the indirect introduction of scrubber water into the cooling tower. Moreover, as noted, the decanted water is feed into the cooling tower basin, not the cooling tower. Simplot requests that the Board correctly reference the prohibition of those provisions in Section 6.8.1 of the Technical Memorandum and delete the statement that "decanted water cannot be fed into the Reclaim Cooling Tower."

14. Conditions that Simplot has already satisfied should be Deleted.

In several instances in the Tier I Permit, IDEQ prescribes conditions which Simplot has already satisfied.[21] For instance, Condition 15.14 requires Simplot to conduct a compliance test on the Superphosphoric Acid Plant to determine compliance with NO_x emission limits.[22] This test was performed, and notice was provided to IDEQ. Other examples where Simplot has completed tests include Conditions 15.15 and 16.3.1. Those testing requirements have been completed and are no longer necessary. Simplot has also fulfilled the testing requirements of Condition 16.14. Moreover, Simplot installed a continuous emissions monitoring system, which demonstrates compliance, rendering the need to conduct performance tests unnecessary.

Additional examples of testing conditions that have been satisfied include Condition 16.11 and Conditions 16.11.1, 16.11.2, 16.11.3, 16.11.4, and 16.11.5. Performance testing has already been completed to satisfy those conditions. Therefore, Simplot requests that Conditions 11.7, 15.14, 15.15, 16.3.1, 16.11.1, 16.11.2, 16.11.3, 16.11.4, 16.11.5, and 16.14, be deleted. Alternatively, Simplot requests that the Board add language to each of the conditions stated that Simplot has completed the underlying requirements.

15. Monitoring Requirements for the Reclaim Cooling Towers are New Substantive Requirements and are Unreasonable.

---

[21] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment Nos. 36, 68 and 70.

[22] This conditions identified are a non-exclusive list. Additional conditions that have been satisfied may be identified later.

Pursuant to Conditions 14.9 – 14.11, Simplot must continuously monitor the total inlet and the total outlet streams to the Reclaim Cooling Towers. *See* **Exhibit A**. This monitoring requirement encompasses an unapproved and arbitrary test protocol to demonstrate compliance with permitted fluoride and PM/PM_{10} limits.[23]

PM and fluoride emission limits for the Reclaim Cooling Towers were established in the 1999 Operating Permit based on EPA Methods 5 and 13B. *See* **Exhibit D**, Condition 2 and Appendix A (1999 Operating Permit). In Conditions 14.9 – 14.11, IDEQ has dictated that future compliance with those emission limits will be determined by a protocol that amounts to a material balance of waters, total solids and fluorides entering and exiting the Reclaim Cooling Towers. IDEQ has altered the compliance method and the emissions which must be complied with and created more stringent limits.

In addition, such a compliance demonstration protocol is impossible given Simplot's existing instrumentation. Even if Simplot installed the necessary monitoring instruments, the instruments will be subject to some error and will not adequately demonstrate compliance. In effect, IDEQ has prescribed substantive new requirements without any justification or authority. As explained earlier, Title V does not allow IDEQ to establish new substantive requirements. Simplot requests that Condition 14.9 – 14.11 be deleted.

16. <u>The CEMS on the Sulfuric Acid Plant No. 300 is not Capable of Monitoring H_2SO_4 Continuously</u>.

Condition 16.2 establishes a three (3) pound per hour emission limit for sulfuric acid mist (as total H_2SO_4) calculated as a twenty (24) hour rolling average and a thirteen (13) ton limit for any consecutive twelve (12) month period. *See* **Exhibit A**. This requirement derives from an

[23] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment Nos. 63 and 64.

erroneous existing PTC condition for the No. 300 Sulfuric Acid Plant.[24] *See id.*, Condition 2.1.2. The 24 hour averaging period requires Simplot to continuously measure H_2SO_4.

Simplot is not required to nor does it have the capability to measure H_2SO_4 continuously. 40 C.F.R. Part 60, Subpart H requires a CEMS capable of measuring SO_2, not H_2SO_4. *See* 40 C.F.R. § 60.84(a). Rather, federal standards require a one-time performance test to demonstrate compliance with the emission limit established in 40 C.F.R. § 60.83(a)(1). As a result, it is not possible to maintain a twenty-four (24) hour average for H_2SO_4. Simplot requests that the Board revise Condition 16.2 to delete the reference to the twenty-four (24) hour rolling average.

17. The production limitation for the Sulfuric Acid Plan No. 300 should be revised to 1900 tons/day.

Condition 16.8 of the Don Tier I permit prescribes a production limit on the No. 300 Sulfuric Acid Plant of 1750 tons/day. On January 31, 2002, Simplot requested that IDEQ increase the production limitation from 1750 tons per day to 1900 tons per day. *See* Simplot's January 31, 2002 letter to IDEQ attached as **Exhibit L**. The request was based upon source test results confirming that an increased production rate can be achieved without increasing allowable emissions levels. On April 23, 2002, IDEQ notified Simplot that the request would be subject to review under the requirements for prevention of significant deterioration ("PSD") and would consequently require the development of a significant amount of new information. *See* the IDEQ April 23, 2002 letter to Simplot attached as **Exhibit M.**

Simplot disagrees with the conclusion reached by IDEQ in the April 23, 2002 letter. IDEQ's analysis of PSD applicability is flawed. For the reasons stated in Section II.A of this petition, revision of the underlying permit to increase the production limit and in the inclusion of new limitation in the Don Tier I permit is appropriate at this time. Therefore, Simplot requests

[24] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 69.

that the production limitation set forth in Condition 16.8 of the Don Tier I permit be revised to allow production of 1900 tons/day.

18. Opacity Requirements on the Sulfuric Acid Plant must be Reconciled.

The Sulfuric Acid Plant No. 300 stack is subject to two different opacity standards.[25] In Condition 16.6, IDEQ prescribes a 10% opacity limit as determined by EPA Method 9, while Condition 16.7.1 sets forth a 20% limit to be determined under IDAPA 58.01.01.625. *See* **Exhibit A**. The averaging periods also differ. *Compare* EPA Method 9 (30 six minute averages) *with* IDAPA 58.01.01.625 (3 minutes in any 60 minute period). In effect, Simplot must demonstrate compliance with different opacity limitations and averaging periods for the plant stack. Simplot requests that the Board reconcile the opacity limits and average periods. Requiring Simplot to perform two opacity tests to demonstrate compliance with two different standards is unnecessary and unduly burdensome.

19. Condition 16.7.2 is Impractical, Unnecessary, and Unenforceable.

Condition 16.7.2 of the Don Tier I Permit imposes a requirement on the control of fugitive emissions that is unenforceable.[26] *See* **Exhibit A**. Specifically, the condition reads: "Visible fugitive emissions shall not be observed leaving the property boundary for a period or periods aggregating more than three minutes in any 60-minute period." This condition is an impractical, unnecessary, and unenforceable permit term and should be deleted.

The language of Condition 16.7.2 is not set forth in the underlying applicable provision of the Idaho Air Rules, IDAPA 58.01.01.625 and is not required by federal law. To adequately control fugitive emissions, the regulated sources in Idaho shall comply with Rule 625. Additional regulatory requirements on the control of fugitive emissions are unnecessary to

[25] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 72.
[26] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 73.

conform to the Idaho Air Rules or to comply with the NSR. Consistent with EPA's guidance for streamlining applicable requirements in a Tier I operating permit, Simplot requests that Condition 16.7.2 be deleted from the Don Tier I Permit.

20. The Requirement to Monitor Ambient Concentrations of SO_2 is Obsolete.

Conditions 16.15 and 17.8.1 of the Don Tier I Permit require Simplot to monitor ground-level ambient SO_2 concentrations. *See* **Exhibit A**. The SO_2 monitoring requirement is obsolete, carries no environmentally protective significance and should be deleted from the permit.[27]

On June 9, 1976, EPA initially imposed SO_2 monitoring on Simplot as part of Idaho's SO_2 control strategy for the Eastern Idaho Intrastate Air Quality Control Region ("AQCR"). *See* 41 Fed. Reg. 23200 (June 9, 1976). At that time, Simplot and EPA were unable to agree on an SO_2 emissions rate for the No. 300 Sulfuric Acid Plant to ensure the attainment and maintenance of the National Ambient Air Quality Standard ("NAAQS") for SO_2. EPA promulgated an emissions limit of two thousand, one-hundred and ninety (2,190) pounds of SO_2 per hour for the No. 300 Sulfuric Acid Plant and further required Simplot to install and operate an ambient monitoring network to measure SO_2 concentrations. *See* 41 Fed. Reg. at 23201-23202; 40 C.F.R. §52.675(b)(7).

The stated purpose for the SO_2 monitoring requirement was "to determine whether a more restrictive emission limit is required" for the acid plant and "to fully assess the impact of SO_2 emissions on ambient air quality in the principal downwind directions from the plant." 41 Fed. Reg. at 23201-23202. Accordingly, SO_2 monitoring was required until an "adequate data base" was generated, following which Simplot was required to develop and submit for EPA's

[27] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 76.

consideration "the degree of permanent emissions control required on the #300 acid plant to ensure attainment and maintenance of NAAQS." 41 Fed. Reg. at 23201.

Simplot continues to monitor SO_2 concentrations around the Don plant despite the generation of an "adequate data base," the redesignation of the Eastern Idaho Intrastate AQCR to attainment, and the development of a more stringent SO_2 emission limit on the No. 300 Sulfuric Acid Plant. Simplot has monitored SO_2 concentrations for over thirty (30) years. During that time, EPA redesignated the AQCR to attainment based upon data that showed no violations of the SO_2 NAAQS for eight (8) quarters. *See* 47 Fed. Reg. 32530, 32531 (July 28, 1982). It is Simplot's understanding that no violations of the NAAQS have been recorded since—the area has maintained its attainment status.

In addition, IDEQ has issued permits for the No. 300 Sulfuric Acid Plant, establishing more restrictive emissions limits of SO_2, as contemplated when the monitoring was initially imposed in 1976. *See* **Exhibit D** at Condition 2.1.1 (1999 Operating Permit); *see also* Condition 2.1 and Appendix A of PTC No. 077-00006 (300 Sulfuric Acid Plant Restoration Project), issued June 15, 2001 ("2001 PTC") attached as **Exhibit N**. Currently, the acid plant is permitted to emit one hundred and seventy (170) pounds of SO_2 per hour, significantly less than EPA's 1976 limit. **Exhibit N**, Condition 2.1 and Appendix A (2001 PTC). This permit, issued pursuant to an approved SIP permitting process, ensures SO_2 emissions from the Don plant will not cause or contribute to a violation of the SO_2 NAAQS.

Consequently, SO_2 ambient monitoring is no longer warranted. Simplot requests that this obsolete monitoring requirement be removed and stricken from Conditions 16.15 and 17.8. The SO_2 monitoring system is obsolete, insignificant, redundant, and therefore unreasonable.

21. The Compliance Schedule (Section 18) is Erroneous and Prejudicial and is Unsupported by the Idaho Air Rules.

Section 18 of the Don Tier I Permit, the Compliance Schedule, states that Simplot is in non-compliance with the Idaho Air Rules and requires Simplot to apply for and obtain a facility-wide Tier II operating permit to cure the alleged non-compliance. Specifically, IDEQ states that "[t]he J. R. Simplot Co. – Don Siding Plant *is not in compliance* at the time of issuance of the Tier I operating permit."[28] *See* **Exhibit A**, Section 18 (emphasis added). According to the Compliance Schedule, Simplot's "compliance issues" are ambient monitoring of SO_2 and ambient air quality standards for fluorides. *See id.* at Condition 18.1. Simplot objects to the Compliance Schedule for the following reasons: the statements regarding Simplot's compliance status are erroneous and prejudicial; and there is no regulatory basis for Simplot to obtain a facility-wide Tier II operating permit for the Don plant.[29]

a. The statement that Simplot is not in compliance with the Idaho Air Rules is erroneous and prejudicial.

IDEQ's statement that Simplot is in non-compliance with the Idaho Air Rules is a legal finding made without adjudication or due process. No opportunity has been afforded to Simplot to defend IDEQ's assertions before the Board or any court of law. Consequently, there has been no formal finding that Simplot is in non-compliance with the Idaho Air Rules, and the language used in the Compliance Schedule is not only erroneous but highly prejudicial and unreasonable. A citizen, using the statements as prima facie evidence of liability, could pursue a third-party enforcement action against Simplot, pursuant to the Clean Air Act's citizen suit provision. *See* 42 U.S.C. § 7604 (CAA § 304). At a minimum, the statements regarding Simplot's non-compliance could provide a viable basis for standing in such a suit and could even be used as

[28] IDEQ reiterates its finding of non-compliance in the Technical Memorandum and Response to Comments. *See* **Exhibit B** at Section 10 and Appendix F, Response to Comment No. 76.

[29] *See* **Exhibit C**; **Exhibit B**, Appendix F at Response to Comment No. 76.

evidence of liability. If so, Simplot would be forced to defend a third-party action at considerable expense, even if the suit was meritless and unsuccessful.[30]

In light of the considerations above, the statement that Simplot is not in compliance with the Idaho Air Rules is erroneous and prejudicial. Simplot requests that the Board modify the mischaracterization of Simplot's compliance status in Section 18 with language that is more representative of the Don Plant's compliance status and does not subject Simplot to prejudicial, un-adjudicated legal conclusions.

b. Simplot has completed ambient monitoring of SO_2.

In addition, the statement that Simplot is non-compliance with ambient monitoring of SO_2 is erroneous. As explained above, Simplot has completed its SO_2 ambient monitoring obligations; those monitoring requirements are obsolete. Simplot requests that the Board strike reference to ambient monitoring of SO_2 in Condition 18.1.

c. There is no regulatory basis for Simplot to obtain a facility-wide Tier II operating permit.

According to the Compliance Schedule, in order to rectify the alleged non-compliance, Simplot must also apply for and obtain a "facility-wide Tier II operating permit" for the Don plant. *See* **Exhibit A,** Conditions 18.2 and18.3. This additional permitting is also required to determine if Simplot "should have obtained a PTC or a PTC modification for any other source or sources at the facility." *See id.* at Conditions 18.4. Upon submitting a complete application for a facility-wide operating permit, Simplot must request a modification of the Don Tier I Permit, which is also a facility-wide operating permit. *See id.* at Condition 18.7. Simplot objects to the

[30] It is noteworthy that in administrative enforcement actions that are resolved by a consent order, IDEQ generally does not find a source is "not in compliance" with the Idaho Air Rules. Rather, the source agrees to the terms and conditions of the consent order and does so without admitting liability.

requirement to obtain a second facility-wide operating permit for the Don plant. The basis and necessity for a second facility-wide permit for the Don plant is unclear.

The Idaho Air Rules require a stationary source or facility to obtain a Tier II operating permit in certain, limited circumstances:

> (i) when a stationary source or facility wishes to accept limitations on the facility's potential to emit so as to authorize the use of alternative emission limits or emission offsets, to bank emission reduction credits or to exempt the facility from Tier I operating permit requirements;
> (ii) when a stationary source or facility is subject to a permit to construct but is not subject to Sections 300 through 386 (Tier I operating permit requirements) and establishes any different emission standard;
> (iii) when emission rate reductions are necessary to attain or maintain any ambient air quality standard or applicable prevention of significant deterioration increment; or
> (iv) when specific emission standards, or requirements on operation or maintenance are necessary to ensure compliance with any applicable emission standard or rule.

See IDAPA 58.01.01.401.02 and 03. IDEQ has made no demonstration that any of those circumstances are present to warrant a facility-wide Tier II permit for the Don plant.

Even if IDEQ can justify additional permitting for individual sources, the basis for requiring Simplot to undertake another "facility-wide" review is unclear. Simplot submitted information for a facility-wide operating permit in 1995 and later updated that information in 1999 and 2000, in support of the Don Tier I Permit. The requirement for a facility-wide Tier II permit is approach is unreasonable absent a showing made pursuant to Rule 401 and considering the issuance of the Don Tier I Permit.

Furthermore, Condition 18.4 of the Compliance Schedule represents an open-ended obligation for Simplot to obtain a PTC or PTC modification for sources at the Don plant. This requirement is repetitive and arbitrarily expansive; the regulatory basis for this burdensome approach is unclear, as well. IDEQ, by requiring a facility-wide Tier II operating permit and a

PTC review, is effectively imposing new substantive requirements on Simplot through the Tier I permitting process. As explained, Tier I permits define existing compliance obligations and do not provide IDEQ a means to circumvent the Idaho Air Rules in order to impose new applicable requirements on a Tier I source.

For the reasons explained, Simplot objects to Section 18 of the Don Tier I Permit. Simplot requests that the Board delete the requirement to apply for and obtain a facility-wide Tier II operating permit. In light of the facility-wide information already provided to IDEQ to address the permitting status of the Don plant and the issuance of a facility-wide Tier I operating permit, IDEQ cannot reasonably justify the expansive requirements set forth in Section 18. The Idaho Air Rules do not give IDEQ the authority to require a facility-wide Tier II operating permit for the Don plant.

22. Miscellaneous Errors in the Tier I Permit and the Technical Memorandum and should be Corrected.

a. IDEQ failed to label several conditions of the Don Tier I Permit as "State-Only" Conditions.[31] Conditions 2.3, 7.11, 7.12, 8.1 – 8.12 and 12.4 are not required by federal law and are unrelated to EPA's new source review program. Accordingly, the permit must specify that the conditions are state-only requirements.

b. In Table 2.1 and Condition 2.23.2 of the Tier I Permit, IDEQ states that Simplot must monitor the "ambient fluoride in *vegetation*." *See* **Exhibit A** (emphasis added). As referenced in the permit, this monitoring requirement is inconsistent with the Idaho Air Rules and is incorrect.[32] IDAPA 58.01.01.577.06 prescribes ambient air quality standards for fluorides and describes the standards as relating to "those concentrations in the ambient air which result in

[31] *See* **Exhibit C**; **Exhibit B**, Appendix F at Comment Nos. 15 and 43.
[32] *See* **Exhibit C**; **Exhibit B** at Response to Comment No. 13.

a total fluoride content in *vegetation used for feed and forage . . . .*" (Emphasis added). Simplot requests that the Board revise Condition 2.23.2 to state: "Ambient fluoride in vegetation *used for feed and forage* shall be monitored outside the Don Siding Complex at 15 different locations during the growing season." Simplot also requests that Table 2.1 and Section 5.1.16 of the Technical Memorandum be revised accordingly.

c. In Condition 4.10 of the Tier I Permit, IDEQ requires Simplot to develop O&M manuals for each wet scrubber system in the Ammonium Sulfate Plant.[33] *See* **Exhibit A.** IDEQ cites IDAPA 58.01.01.322.01 to support the O&M manual requirements. While Rule 322.01 grants IDEQ the authority to include gap filling compliance demonstration methods but does not specifically identify O&M manuals. Because Condition 4.10 is a new substantive requirement, Simplot requests that the Board delete the condition.

d. In Section 5, IDEQ has included an incorrect heat input rating for the HPB&W Boiler of 175,000 Btu/hr. The correct heat input is 175,000,000 Btu/hr.[34]

e. IDEQ incorrectly cites 40 C.F.R. 60.46b(i) as the applicable requirement for the NOx emission limit in Condition 5.4.[35] *See* **Exhibit A.** The correct citation is 40 C.F.R. 60.44b(a)(i). Simplot requests that the correct citation be identified.

f. Condition 7.10 incorrectly states the requirements of 40 C.F.R. § 63.624. *See* **Exhibit A.** The condition should state: "[T]he owner/operator using a wet scrubbing emission control system must maintain daily *averages* of the pressure drop across each scrubber . . ." (Emphasis added).

---

[33] *See* **Exhibit C; Exhibit B,** Appendix F at Response to Comment No. 33.
[34] *See* **Exhibit C; Exhibit B,** Appendix F at Response to Comment No. 14.
[35] *See* **Exhibit C; Exhibit B,** Appendix F at Response to Comment No. 38.

g. The summary description in Section 9 (second paragraph) of the Tier I Permit states that the Granulation No. 3 process is capable of making "mono-, bi-, or calcium-phosphate product." *See* **Exhibit A.** This is incorrect and should be revised to "*mono- or di-*calcium-phosphate product."

h. In addition, the summary description in Section 9 (third paragraph) states that the Granulation No. 3 process "was capable of making diammonium and/or monoammonium phosphate by introducing ammonium into the process." *See* **Exhibit A.** Simplot is not permitted to make diammonium and/or monoammonium phosphate through the introduction of ammonium and would have to undergo preconstruction review to do so. The third paragraph of Section 9 should be deleted.

i. On October 16, 2002, Simplot provided IDEQ with an updated Table 9.1 that more accurately reflects emission units, control devices and points for the Granulation No. 3 Process, East Bulking Station, and Defluorination Process.[36] *See* an October 16, 2002 e-mail from Simplot to Shawnee Chen (IDEQ) and the updated table attached as **Exhibit O.** IDEQ failed to update the table. Simplot requests that Table 9.1 be updated.

j. Condition 9.1.2 prescribes the process weight rule and describes the Granulation No. 3 Process as operating prior to October 1, 1979.[37] *See* **Exhibit A.** The Granulation No. 3 Process was modified pursuant to a PTC issued December 12, 2001. Condition 9.1.2 should state that the plant commenced operation on or after October 1, 1979.

k. Table 12.1 is also incorrect. *See* **Exhibit A.** During the public comment period, Simplot provided IDEQ with an updated table. The updated table is attached as **Exhibit O.** Simplot requests that Table 12.1 be updated.

---

[36] *See* **Exhibit C; Exhibit B,** Appendix F at Response to Comment No. 14.
[37] *See* **Exhibit C; Exhibit B,** Appendix F at Response to Comment No. 14.

l. The heading in Section 14 should state "Direct Contact," rather than "Directed Contact." *See* **Exhibit A.**

III. REQUEST FOR STAY

Pending resolution of this contested case proceeding, Simplot requests a stay of a number of the Tier I Permit conditions of which it seeks review. Pursuant to the Administrative Procedure Rules, the filing of a contested case petition itself does not stay the effectiveness of an IDEQ action; rather "[a]n action or inaction of the Department . . . is not stayed unless, upon a motion filed by a party, it is so ordered by the presiding officer." IDAPA 58.01.23.101. The standard for a stay, however, is not articulated in the rules. The Idaho Administrative Procedure Act, I.C. § 67-5201 *et seq.* (2001), contains a provision similar to IDAPA 58.01.23.101, but again, no standard by which to judge the appropriateness of a stay of an administrative decision is defined. I.C. § 67-5274. The standard for a stay is not articulated by Idaho's appellate courts.

Courts in other jurisdictions have applied the standard for a preliminary injunction in determining whether a stay of an administrative decision is appropriate. *See, e.g.*, *State of Ohio ex rel. Celebrezze v. Nuclear Regulatory Commission*, 812 F.2d 288, 290 (6th Cir. 1987); *State ex rel. Director of Revenue, State of Missouri v. Gabbert*, 925 S.W.2d 838, 839 (Mo. 1996). It follows, therefore, that any judgment on the appropriateness of a stay of the Tier I Permit involves some consideration of Simplot's likelihood of success on the merits and likelihood of irreparable harm or injury—the standard set forth in Idaho Rule of Civil Procedure 65(e)(1) and (2) for a preliminary injunction.

According to *State of Ohio ex rel. Celebrezze*, 812 F.2d at 290, it is not necessary for the moving party to establish a high probability of success on the merits to justify the granting of a stay. "The probability of success that must be shown is inversely proportional to the degree of

irreparable injury the plaintiffs will suffer absent an injunction. Thus, a stay may be granted with either a high probability of success and some injury or vice versa." *State of Ohio ex rel. Celebrezze*, 812 F.2d at 290. Here that balance between probability of success on the merits and the likelihood of injury to Simplot warrants the stay of the challenged permit conditions and requirements.

Simplot has demonstrated a probability of success on the merits for those portions of the Tier I Permit. As explained, (1) Condition 2.15 and Table 2.2 should be revised since it is not appropriate to require Simplot to demonstrate compliance with PM/PM_{10} emission limits using Methods 201a/201 and 202; (2) weekly facility inspections under Conditions 2.4 and 2.8 are not authorized by the Idaho Air Rules; (3) Condition 2.23.1 requiring Simplot to measure throughput rates for each material flow direction and for each piece of process equipment is unreasonable; (4) Sections 3 and 11 are obsolete and should be deleted since No. 100 and No. 200 Ammonia Plants and the Nitric Acid plant, respectively, are no longer in operation; (5) the various conditions that prescribe emission limits based on incorrect emission factor must be revised; (6) Conditions 4.15, 4.16, 7.13, and 8.13 are new applicable requirements that should be deleted; (7) Condition 14.4 has been wrongly interpreted by IDEQ; (8) Conditions 14.9 – 14.11 are unworkable and should be revised to delete the twenty (24) hour rolling average; (9) Condition 16.8 should be revised to increase the production rate for the No. 300 Sulfuric Acid Plant; (10) Conditions 16.6 and 16.7.1 prescribe opacity limits and averaging periods that must be reconciled; (11) Condition 16.7.2 is an unenforceable and unreasonable condition; (12) Conditions 16.15 and 17.8.1 which require Simplot to monitor ground-level ambient SO_2 concentrations are obsolete and should be deleted; (13) Section 18, the Compliance Schedule, must be revised since the statements regarding Simplot's compliance status are erroneous and

prejudicial and since there is no regulatory basis for Simplot to obtain a facility-wide Tier II operating permit for the Don plant; and (14) Table 2.1 and Condition 2.23.2 must be revised to accurately reflect the Idaho Air Rules.

Based on this Petition, Simplot seeks the stay of the each of the conditions identified above. Absent the imposition of a stay of those conditions, Simplot will experience irreparable harm or injury as the company will be force to incur expenses immediately in order to comply with permit conditions that are ultimately unreasonable.

IV. CONCLUSION

Simplot respectfully petitions the Board for a contested case proceeding on the portions of the Don Tier I Permit discussed above and requests a stay of the objectionable portions of the conditions and requirements pending resolution of the issues raised. Based on the foregoing, Simplot respectfully requests that the Board grant the relief requested.

DATED this 28TH day of January, 2003.

Christopher Pooser
Stoel Rives LLP
Attorneys for J.R. Simplot Company

EXHIBIT LIST

Exhibit A	Air Quality Tier I Operating Permit No. 077-00006, issued December 24, 2002 (the "Don Tier I Permit").
Exhibit B	Technical Basis for Tier I Operating Permit dated December 17, 2002 (the "Technical Memorandum").
Exhibit C	Simplot's written comments on the draft Don Tier I Permit, dated September 30, 2002.
Exhibit D	Operating Permit No. 077-00006, issued on December 3, 1999 (the "1999 Operating Permit").
Exhibit E	IDEQ's letter to Simplot dated March 23, 2001, requesting Simplot's participation in the development of a PM_{10} State Implementation Plan.
Exhibit F	Simplot's letters to IDEQ dated April 24, 2001, and July 30, 2001, regarding PM_{10} and $PM_{2.5}$ emission testing using Method 5.
Exhibit G	Excerpts from Operating Permit No. 30-125-1, issued on August 5, 2002, to SF Phosphates Limited Company by the Wyoming Department of Environmental Quality.
Exhibit H	Simplot's letter to IDEQ dated August 20, 2002, regarding the shutdown of the Ammonia Plants.
Exhibit I	Simplot's letter to IDEQ dated November 4, 2002, regarding the shutdown of the Nitric Acid Plant.
Exhibit J	E-mail from Harbi Elshafei (IDEQ) to Simplot dated the May 15, 2000, regarding the appropriate schedule for compliance testing.
Exhibit K	Excerpts from Tier I Operating Permit No. 067-00017, issued November 18, 2002, for Simplot's potato processing facility located in Heyburn, Idaho.
Exhibit L	Simplot's letter to IDEQ dated January 31, 2002, regarding an increase in the production limitation for the No. 300 Sulfuric Acid Plant.
Exhibit M	IDEQ's letter to Simplot dated April 23, 2002, regarding an increase in the production limitation for the No. 300 Sulfuric Acid Plant.
Exhibit N	PTC No. 077-00006 (300 Sulfuric Acid Plant Restoration Project), issued June 15, 2001.

Exhibit O Simplot's e-mail to IDEQ dated October 16, 2002 regarding updated Tables 9.1 and 12.1.

CERTIFICATE OF SERVICE

person(s) on the date indicated below by [illegible] CONTESTED CASE

[ ] mailing with postage prepaid
[X] hand delivery
[ ] facsimile transmission
[ ] overnight delivery

to said person(s) a true copy thereof, contained in a sealed envelope, addressed to said person(s) at their last-known address(es) indicated below.

Ms. Paula Gradwohl
Attorney General's Office
Department of Environmental Quality
1410 North Hilton
Boise, ID 83706

DATED: January 28th, 2003

Christopher Pooser

ATTACHMENT B

ORIGINAL TECHNICAL MEMORANDUM

TECHNICAL BASIS FOR TIER I OPERATING PERMIT

DATE: December 17, 2002

PERMIT WRITER: Shawnee Chen

PERMIT COORDINATOR: Bill Rogers

SUBJECT: AIRS Facility No. 077-00006, J.R. Simplot Co. – Don Siding Plant
Final Tier I Operating Permit
Project No. T1-9507-114-1

Permittee:	J.R. Simplot Co. - Don Siding Plant
Permit Number:	077-00006
Air Quality Control Region:	061
AIRS Facility Classification:	A
Standard Industrial Classification:	2874
Zone:	12
UTM Coordinates:	375.6, 4751.6
Facility Mailing Address:	P.O. Box 912, Pocatello, Idaho 83204
County:	Power
Facility Contact Name and Title:	Leon C. Pruett, Environmental, Safety, and Health Manager
Contact Name Phone Number:	(208) 234-5370
Responsible Official Name and Title:	Delbert Butler, Plant Manager
Exact Plant Location:	Section 18 R-34-E, T-6-S; 5½ Section 7 R-34-E T-6-S
General Nature of Business & Kinds of Products:	Nitrogen, phosphate, and sulfate commercial product manufacturing

TABLE OF CONTENTS

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AFS	AIRS facility subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
Btu	British thermal unit
CFR	Code of Federal Regulations
CEMS	Continuous Emissions Monitoring System
Ci/yr	Curies per year
CO	carbon monoxide
DEQ	Idaho Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pounds per hour
lb/ton	pounds per ton
MACT	Maximum Available Control Technology
MMBtu	million British thermal units
MMcf/hr	million cubic feet per hour
MMcf/yr	million cubic feet per year
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NH_3	ammonia
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operations and maintenance
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter of 10 micrometers or less
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
scf	standard cubic feet
Simplot	J.R. Simplot Don Siding Plant
SIP	State Implementation Plan
SO_2	sulfur dioxide
SPA	superphosphoric acid
TAP	toxic air pollutant
TSP	total suspended particulate
T/yr	tons per year
VOC	volatile organic compound

PUBLIC COMMENT / AFFECTED STATES / EPA REVIEW SUMMARY

, 30-day public comment period for the J.R. Simplot Don Siding Plant draft Tier I Operating Permit (Permit) was eld in accordance with IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho.*

DAPA 58.01.01.008.01 defines affected states as: "*All states: whose air quality may be affected by the emissions of ne Tier I source and that are contiguous to Idaho; or that are within fifty (50) miles of the Tier I source.*"

, review of the site location information included in the permit application indicates that the facility is not located /ithin 50 miles of a state border.

, proposed permit was developed based on comments submitted during the public comment period. The proposed ermit was then forwarded to the EPA for their review as required by IDAPA 58.01.01.366. The EPA provided no /ritten objection to the permit.

1. - PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this draft Tier I operating permit in accordance with IDAPA 58.01.01.362, Rules for the Control of Air Pollution in Idaho (Rules).

DEQ has reviewed the information provided by J.R. Simplot regarding the operation of the Don Siding Plant located near Pocatello, Idaho. This information was submitted based on the requirements to submit a Tier I operating permit in accordance with IDAPA 58.01.01.300.

2. SUMMARY OF EVENTS

On July 26, 1995, DEQ received the Tier I operating permit application from J.R. Simplot Company for their Don Siding facility. The application was prepared by TRC Environmental Corporation, the facility's consulting firm. The application was determined complete in 1995.

On October 19, 1999, DEQ received an updated Tier I operating permit application for the Don Siding facility. The application was prepared by Technology Management Services, the facility's consulting firm.

On June 30, 2000, DEQ received an updated Tier I operating permit application for the Don Siding facility. This application also served as a Tier II operating permit application. The application was prepared by SECOR International Incorporated, the facility's consulting firm.

The draft Tier I operating permit was issued for public comment on August 31, 2002. A public hearing was held in Pocatello, Idaho on September 30, 2002. The public comment period ended on September 30, 2002. The comments were addressed by the Department in a document entitled "State of Idaho Department of Environmental Quality Response to Public Comments on Draft Air Quality Tier I Operating Permit for J.R. Simplot Don Siding Plant" (refer to Appendix F of this memorandum). A proposed permit was developed based on comments submitted during the public comment period. The proposed permit was then forwarded to the EPA for their review as required by IDAPA 58.01.01.366. The EPA provided no written objection to the permit.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- Tier I operating permit applications, received on July 26, 1995, October 19, 1999, and June 30, 2000.
- Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, January 1995, Office of Air Quality Planning and Standards, United States Environmental Protection Agency.
- Guidance developed by the EPA and DEQ.
- Title V permits issued by other jurisdictions.

4. FACILITY DESCRIPTION

4.1 GENERAL PROCESS DESCRIPTION

The facility is an integrated phosphate fertilizer manufacturing plant. The plant produces phosphoric acid, sulfuric acid, nitric acid, ammonia, several grades of solid and liquid fertilizers, and other commercial chemical products. A detailed process description can be found under each emissions unit group, as well as in the Tier I operating permit applications.

2 FACILITY CLASSIFICATION

The facility is classified as a major facility, in accordance with IDAPA 58.01.01.008.10, for Tier I permitting purposes, because the facility emits or has the potential to emit PM_{10}, CO, NO_x, SO_2, and VOCs, each at over 100 T/yr. The facility is a designated facility as defined by IDAPA 58.01.01.006.27, and as such, is an existing PSD facility and subject to PSD permitting requirements. The SIC defining the facility is 2874, Phosphate Fertilizer Manufacturing, and the AIRS/AFS facility classification is A.

.3 AREA CLASSIFICATION

The facility is located within AQCR 61and is located in Power County, which is classified as a moderate nonattainment area for PM_{10}. The region is unclassifiable for the other criteria pollutants. There are no Class I areas within 10 km of the facility.

.4 PERMITTING HISTORY

- Granulation 3 Plant upgrade, PTC No. 077-00006, issued December 12, 2001.
- Granulation 3 Plant upgrade modification, PTC No. 077-00006, issued October 16, 2001. This PTC incorporates the requirements of Tier II Permit No. 077-00006, issued December 3, 1999.
- Consent Order issued August 9, 2001.
- Ammonia unloading upgrade project, PTC exemption, issued June 27, 2001.
- The 300 Sulfuric Acid Plant restoration project, PTC No. 077-00006, issued June 15, 2001.
- Limestone Treatment System, PTC exemption, issued October 24, 2000.
- Boiler replacement, PTC No. 077-00006, September 20, 2000.
- Tier II Permit No. 077-00006, issued December 3, 1999, expired June 29, 2000. This Tier II operating permit incorporates the July 13, 1999 Tier II operating permit, and Permit No. 1260-0060 issued December 18, 1989.
- Granulation 3 Plant defluorination project, PTC No. 077-00006, November 12, 1999.
- Modification to remove the Cyclonic Scrubber PTC II No. 077-00006, issued August 14, 1998.
- Category 1 exemption notification to construct a solid waste landfill for disposing clean/non-hazardous construction and demolition debris, issued August 16, 1996.
- Sulfuric Acid Plant 3, PTC No. 077-00006, issued September 16, 1996. This PTC incorporates the Sulfuric Acid Plant 3, Permit No. 077-00006, issued May 3, 1996.
- East Dry Bulk Station-Granulation 3 Loadout, PTC No. 077-00006, issued September 13, 1995. This PTC incorporates the requirements of the East Dry Bulk Station-Granulation 3 Loadout, Permit No. 077-00006, issued June 28, 1995.
- Category 1 exemption notification for a Granulation 1 Reject Hopper project, issued July 17, 1996.
- Tier II, PM_{10} SIP, Permit No. 077-00006, issued June 29, 1995, expired June 29, 2000.
- Babcock and Wilcox Boiler, PTC No. 077-00006, issued June 16, 1995.

- Toxic air pollutant exemption notification for fluoride emissions from the phosphoric acid product treatment system, issued February 17, 1995.
- Tier II, PM_{10} SIP, Permit No. 077-00006, issued August 29, 1994, expired August 29, 1999.
- Plant expansion PSD Permit No. 1260-0060, issued December 18, 1989, expired December 18, 1994.
- Upgrade of control equipment at the Monoammonium Phosphate Plant 100, PTC No. 1260-0060, issued August 21, 1991, expired December 18, 1994.
- Vanadium Recovery Pilot Plant, PTC exemption, issued May 29, 1990.
- Extended Absorption Scrubber, PTC No. 1260-0060, issued April 17, 1990.
- Wet Process Phosphoric Acid Plant 4, PTC No. 1260-0006, issued January 20, 1986.
- Addition to Super Phosphoric Acid Plant 3, PTC No. 1260-0006, issued May 3, 1985.
- Sulfuric Acid Plant 4, PTC No. 1260-0006, issued January 25, 1985.
- J.R. Simplot Company, PTC No. 1260-0006-060, issued January 20, 1986. This PTC incorporates the J.R. Simplot Company, Permit No. 13-1260-0006, issued March 9, 1981 and December 15, 1980.

4.5 EMISSIONS DESCRIPTION

The summary table of permitted annual emissions limits can be found in Appendix C of this technical memorandum. Detailed limits can be found in the permit. The emissions inventory for this facility can be found in Simplot's June 2000 Tier I/II application, Appendix D.

5. REGULATORY ANALYSIS - FACILITY-WIDE REQUIREMENTS

5.1 FACILITY-WIDE APPLICABLE REQUIREMENTS

5.1.1 Fugitive Particulate Matter [IDAPA 58.01.01.650-651]

5.1.1.1 Applicable Requirement

Permit Condition 2.1 states that all reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

5.1.1.2 Compliance Demonstration

Permit Condition 2.2 states that the permittee is required to monitor and maintain records of the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. IDAPA 58.01.01.651 gives some examples of ways to reasonably control fugitive emissions (e.g., using water or chemicals, applying dust suppressants, using control equipment, covering trucks, paving roads or parking areas, and removing materials from streets).

Permit Condition 2.3 requires that the permittee maintain a record of all fugitive dust complaints received. In addition, the permittee is required to take appropriate corrective action as expeditiously as practicable after a valid complaint is received. The permittee is also required to maintain records that include the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

To ensure that the methods being used by the permittee to reasonably control fugitive PM emissions whether or not a complaint is received, Permit Condition 2.4 requires that the permittee conduct periodic inspections of the facility. The permittee is required to inspect potential sources of fugitive emissions during daylight hours and under normal operating conditions. If the permittee determines that the fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee is also required to maintain records of the results of each fugitive emissions inspection.

Permit Conditions 2.3 and 2.4 require the permittee to take corrective action as expeditiously as practicable. In general, DEQ believes that taking corrective action within 24 hours of receiving a valid complaint or determining that fugitive particulate emissions are not being reasonably controlled meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

.1.2 Control of Odors [IDAPA 58.01.01.775-776]

.1.2.1 Applicable Requirement

Permit Condition 2.5 and IDAPA 58.01.01.776 both say that no person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution. This condition is currently considered federally enforceable until such time as it is removed from the SIP, at which time it will be a state-only enforceable requirement.

.1.2.2 Compliance Demonstration

Permit Condition 2.6 requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. The records are required to contain the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Permit Condition 2.6 requires the permittee to take corrective action as expeditiously as practicable. In general, DEQ believes that taking corrective action within 24 hours of receiving a valid odor complaint meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.3 Visible Emissions [IDAPA 58.01.01.625]

5.1.3.1 Applicable Requirement

IDAPA 58.01.01.625 and Facility-wide Condition 2.7 state: "No person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined..." by IDAPA 58.01.01.625. This provision does not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason for the failure to comply with the requirements of this rule.

5.1.3.2 Compliance Demonstration

To ensure reasonable compliance with the visible emissions rule, Facility-wide Condition 2.8 requires that the permittee conduct routine visible emissions inspections of the facility. The permittee is required to inspect potential sources of visible emissions during daylight hours and under normal operating conditions. The visible emissions inspection consists of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission covered by this section, the

permittee must either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee must take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130 to 136. The permittee is also required to maintain records of the results of each visible emissions inspection and each opacity test when conducted. These records must include the date of each inspection, a description of the permittee's assessment of the conditions existing at the time visible emissions are present, any corrective action taken in response to the visible emissions, and the date corrective action was taken.

It should be noted that if a specific emissions unit has a specific compliance demonstration method for visible emissions that differs from Facility-wide Condition 2.8, then the specific compliance demonstration method overrides the requirement of Facility-wide Condition 2.8. Facility-wide Condition 2.8 is intended for small sources that would generally not have any visible emissions.

Facility-wide Condition 2.8 requires the permittee to take corrective action as expeditiously as practicable. In general, DEQ believes that taking corrective action within 24 hours of discovering visible emissions meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown [IDAPA58.01.01.130-136]

5.1.4.1 Applicable Requirement

Permit Condition 2.9 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset, and breakdowns. This section is self-explanatory and no additional detail is necessary in this technical analysis. It should; however, be noted that Subsections 133.03, and 134.05 are not specifically included in the permit as applicable requirements. These provisions of the Rules only apply if the permittee anticipates requesting consideration under subsection 131.02 of the Rules to allow DEQ to determine if an enforcement action to impose penalties is warranted. Section 131.01 states: "...The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05." Failure to prepare or file procedures pursuant to Subsections 133.02 and 134.04 is not a violation of the Rules in and of itself, as stated in subsections 133.03a and 134.06b. Therefore, since the permittee has the option to follow the procedures in Subsections 133.02, 133.03, 134.04, and 134.05; and is not compelled to, the subsections are not considered applicable requirements for the purpose of this permit and are not included as such. On November 23, 2001, DEQ received Simplot's excess emissions procedures as required by a consent order dated August 9, 2001. These procedures were required to be developed pursuant to IDAPA 58.01.01.133.02 and 134.04.

5.1.4.2 Compliance Demonstration

The compliance demonstration is contained within the text of Permit Condition 2.9. No further clarification is necessary here.

5.1.5 Reports and Certifications

The permittee shall comply with reporting requirements under Permit Condition 2.10 and General Provisions 24 and 25. Permit Condition 2.10 was developed in accordance with IDAPA 58.01.01.322.08. It specifies when and where to submit reports and certifications. General Provisions 24 and 25 were developed in accordance with IDAPA 58.01.01.322.15.q, .322.08.c, and 40 CFR 70.6(a)(3)(iii). These

provisions require the permittee to submit monitoring reports every six months. General Provision 25 specifies what shall be included in the deviations report.

1.6 Monitoring and Recordkeeping (Permit Condition 2.11)

The permittee is required to maintain recorded data in an appropriate location for a period of at least five years from the date on which the data was generated. Though specific applicable requirements may have shorter record retention times, this requirement requires the permittee to maintain recorded data for five years, which will satisfy the shorter minimum record retention times.

.1.7 Open Burning (Permit Condition 2.12)

All open burning shall be done in accordance with IDAPA 58.01.01.600 to 616.

.1.8 Renovation/Demolition [40 CFR 61, Subpart M – Asbestos] (Permit Condition 2.13)

The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

.1.9 Chemical Accident Prevention Provisions [40 CFR 68] (Permit Condition 2.14)

Any facility that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, must comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130, or
-
- The date on which a regulated substance is first present above a threshold quantity in a process.

According to information in Simplot's June 2000 Tier I/II operating permit application, the facility is subject to 40 CFR 68 and submitted a Risk Management Plan in 1999.

5.1.10 Test Methods (Permit Condition 2.15)

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. The test methods for each emissions limit is listed in the permit in accordance with the following EPA guidance:

Test methods and averaging times: The specific reference test method and averaging times for each emissions limit must be identified in the permit. A reference test method must be identified even if no source-testing requirement is imposed by the permit.

5.1.10.1 Opacity Standard

The opacity shall be determined by the procedures that are contained in IDAPA 58.01.01.625, dated April 23, 1999. For NSPS-affected sources, EPA Reference Method 9 should be used.

5.1.10.2 PM and PM_{10}

The EPA Reference Method 5, or a DEQ-approved testing method, shall be used to test PM emissions. As recommended by EPA and proposed by Simplot in their September 30, 2002 comments to Table 2.2 of the draft Tier I operating, for wet scrubber stacks, or stacks with entrained moisture droplets, PM_{10} will be the sum of the PM_{10} measured by EPA Method 5 (filterable) and PM_{10} measured by EPA Method 202 (condensable). The averaging time for each pollutant is defined within the permit limit or the corresponding EPA Reference Method.

1.10.3 CO

The EPA Reference Method 10, or a DEQ-approved alternative testing method, shall be used to test CO emissions. The averaging time for each pollutant is defined within the permit limit or the corresponding EPA Reference Method.

1.10.4 NO_x, SO_2, VOC, Total Fluorides, H_2SO_4 Mist, and NH_3

- The EPA Reference Method 6, or a DEQ-approved alternative testing method, shall be used to test SO_2 emissions.
- The EPA Reference Method 7, or a DEQ-approved alternative testing method, shall be used to test NO_x emissions.
- The EPA Reference Method 25, or a DEQ-approved alternative testing method, shall be used to test VOC emissions.
- The EPA Reference Method 13A or 13B, or a DEQ-approved alternative testing method, shall be used to test Total Fluorides emissions.
- The EPA Reference Method 8, or a DEQ-approved alternative testing method, shall be used to test H_2SO_4 mist emissions.
- Conditional test method - 27 (CTM-027), or a DEQ-approved alternative testing method, shall be used to test NH_3 emissions.

The averaging time for each pollutant is defined within the permit limit or the corresponding EPA Reference Method.

5.1.10.5 Visible Emissions Inspection

The visible emissions inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test.

5.1.10.6 Total Reduced Sulfur

The EPA Reference Method 16A, or a DEQ-approved alternative testing method, shall be used to test total reduced sulfur emissions. The averaging time for each pollutant is defined within the permit limit or the corresponding EPA Reference Method.

5.1.11 Source Testing and Source Testing Reporting Requirements (Permit Conditions 2.16 and 2.17)

Permit Conditions 2.16, and 2.17 apply to the sections containing source testing requirements. Permit Conditions 2.16, and 2.17 were taken from the Tier II Permit No. 077-00006 dated 12/3/99 and IDAPA 58.01.01.157. They are applicable requirements for Tier I operating permit in accordance with IDAPA 58.01.01.008.03.

5.1.12 Sulfur Content - Distillate Fuel Oil [IDAPA 58.01.01.728, 5/1/94] (Permit Condition 2.18)

5.1.12.1 Applicable Requirement

According to the permittee's application, distillate fuel oil is used at the facility.

5.1.12.2 Compliance Demonstration

The permittee shall maintain supplier documentation verifying distillate fuel oil sulfur content on an as-received basis. To demonstrate compliance with this standard, the facility must maintain documentation

showing that all distillate fuel oil received contains no more than 0.3% sulfur by weight for grade No. 1 and 0.5% sulfur by weight for grade No. 2.

.1.13 Recycling and Emission Reductions [40 CFR 82 Subpart F] (Permit Condition 2.20)

The purpose of 40 CFR 82, Subpart F is to reduce Class I and Class II refrigerants emissions to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the CAA. Subpart F applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances (including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment).

According to Simplot's June 2000 Tier I/II operating permit application, the facility was not in this category when the application was submitted.

5.1.14 Fuel-Burning Equipment (Permit Condition 2.21)

Requirements that apply to fuel-burning equipment (boilers) are listed under each specific Tier I operating permit section.

5.1.15 Exemptions Documentation [IDAPA 58.01.01.200] (Permit Condition 2.22)

The permittee shall keep documentation for all the PTC exemptions developed in accordance with IDAPA 58.01.01.220. The documentation shall be kept in accordance with IDAPA 58.01.01.220.02.

5.1.16 Special Studies (Permit Condition 2.23)

Tier II Permit No. 077-00006, issued December 3, 1999, requires the permittee to conduct ambient monitoring of fluoride vegetation. The Tier II operating permit requires Simplot to develop an Ambient Monitoring Plan detailing quality assurance, procedures, sampling locations, method of collection, method of handling, method of laboratory analysis, sampling frequency, and reporting protocol.

Permit Condition 2.24.1 in the draft permit (2.23.1 in the proposed permit) was taken from the Special Studies section of the existing Tier II operating permit issued on December 3, 1999. The intent of the requirement was to document where each material flow goes and how that affects emissions. Department staff recommends that Simplot address this issue in the Tier II operating permit application required by the compliance schedule of the Tier I permit.

5.1.17 Reporting Requirements for Ambient Fluoride Monitoring (Permit Condition 2.24)

This requirement is taken from the Tier II operating permit issued December 3, 1999.

5.2 NSPS, NESHAP, AND MACT

5.2.1 NSPS [40 CFR 60]

According to the application, Simplot's Don Siding plant is subject to the following subparts of 40 CFR 60.

- Subpart A, General Provision
- Subpart Db, Industrial-Commercial-Institutional Steam Generating Units
- Subpart Dc, Small Industrial Commercial Institutional Steam Generating Units
- Subpart G, Nitric Acid Plants
- Subpart H, Sulfuric Acid Plants

5.2.2 NESHAP and MACT [40 CFR 61 / 40 CFR 63]

The Simplot Don Siding plant is subject to the following requirements of 40 CFR 61:

- Subpart A, General Provision
- Subpart R, Radon Emissions from Phosphogypsum Stacks

The facility is also subject to 40 CFR 63:

- Subpart AA, Phosphoric Acid Manufacturing Plants
- Subpart BB, Phosphate Fertilizer Production Plants

6. REGULATORY ANALYSIS – EMISSIONS UNITS REQUIREMENTS

6.1 NO. 100 AND NO. 200 AMMONIA PLANTS AND ASSOCIATED HANDLING

6.1.1 Emissions Unit Description

Ammonia production takes place in the No.100 and No. 200 Ammonia Plants. In ammonia production, natural gas, air, and steam are used as feed stocks to manufacture ammonia. The point sources in each of these process areas are the reformer and preheater combustion stacks, the ammonia flare stack, the vent collector stack, and various vents. There are no control devices associated with the No. 100 and No. 200 Ammonia Plants. For additional information, refer to the June 2000 Tier I/II operating permit application, the July 1995 Tier I operating permit application, and AP-42 Section 8.1 (1/95).

According to Simplot's June 30, 2000 Tier I/II application, the rated capacity is 110 MMBtu/hr for each reformer and 10 MMBtu/hr for each preheater.

Simplot's June 30, 2000 Tier I/II application notes that the only emissions units in the No. 100 and No. 200 Ammonia Plants are the gas-fired preheaters (source ID 300.0 and 329.0), gas-fired reformers (source ID 301.0 and 330.0) and the ammonia flare (source ID 378.0). The December 3, 1999 Tier II operating permit specifies the facility as the Ammonia Plant and Associated Handling, which covers all emissions units involved with ammonia production. The emissions units associated with the Ammonia Plants can be found in Appendix A of this memorandum under group IDs 7.0, 8.0, 9.0, 11.0, and 12.0.

As stated under "Emissions Limits" in the December 3, 1999 Tier II operating permit, only the Ammonia Plant stacks are subject to the PM, PM_{10}, CO, NO_X, SO_2, and VOC emissions limits. The ammonia plant stacks consist of the reformer stack, preheater stack, ammonia flare stack, and vent collector stack. The ammonia plant fugitives are not subject to these emissions limits.

The emergency ammonia flare is exempt from PTC requirements according to an October 22, 1993 DEQ document sent to Ward A. Wolleson. Therefore, the flare is not subject to the emissions limits set forth in the Ammonia Plant section of the permit. However, the flare is still subject to facility-wide conditions.

The permittee has proposed increasing the SO_2 emissions limit due to a changed emissions factor. The SO_2 emission limits were not changed as part of this permitting analysis because the Tier I permit rules do not authorize increasing the emissions limits.

Regeneration of the activated carbon desulfurization beds produces SO_x, H_2S, CO and hydrocarbons. The emissions from this process are not included in the overall emissions from the ammonia plants, but will need to be addressed in the future Tier II operating permit application.

1.2 CO, NO_X, PM, PM_{10}, SO_2, and VOC Emissions [Tier II Permit No. 077-00006, 9/3/99] (Permit Conditions 3.1 to 3.6)

The process gas in the preheater and reformer tubes is heated with external natural gas. Therefore, emissions from the preheater and reformer stacks contain pollutants due to the natural gas combustion.

.1.2.1 Applicable Requirements

The emissions limits for these pollutants were taken from Tier II Permit No. 077-00006, December 3, 1999. They are applicable requirements for the Tier I operating permit per IDAPA 58.01.01.008.03.

.1.2.2 Compliance Demonstration

The following summarizes the methods to demonstrate compliance:

- Monitoring natural gas usage.
- Calculating emissions rates.
- Reporting any change in fuel type.

.1.3 PM Grain-loading Standard [IDAPA 58.01.01.677] (Permit Condition 3.7)

.1.3.1 Applicable Requirement

The preheaters and reformers are heated indirectly by firing natural gas. Therefore, the grain-loading standard applies to the preheater and reformer flue stacks. According to the 2000 Tier I/II application, the preheaters and reformers were last modified in 1974. Therefore, the requirements specified in IDAPA 58.01.01.677 apply to the Ammonia Plants.

.1.3.2 Compliance Demonstration

As long as only natural gas is combusted, the Ammonia Plants comply with the grain-loading standard. (Preheater and reformer flue gases are included in the combustion process and the flue gases are byproducts of natural gas combustion. Therefore, these gases do not add to the total emissions.) According to AP-42, Table 1.4, approximately 7.6 pounds of particulate is generated per million cubic feet ($lb/10^6$ scf) of natural gas combusted. Also, according to 40 CFR 60 (Appendix A, Method 19), approximately 8,710 dscf of flue gas at standard conditions (68°F, 29.92 inches Hg) is created per million Btus of natural gas. This data is used in the following steps to demonstrate that particulate emissions from natural gas combustion will always be less than the PM standard of 0.015 gr/dscf.

To correct the flue gas volume for Pocatello's altitude of 4,448 feet:

Subtract 0.10 x 44.48 = 4.448 inches Hg from standard atmospheric pressure at sea level

29.92 inches Hg – 4.448 inches Hg = 25.472 inches Hg

Using the Ideal Gas Law and knowing that n, R, and T will be the same:

$$V_2 = \frac{P_1 V_1}{P_2} \qquad (1)$$

Where,

V_2 = the gas volume corrected for altitude
V_1 = the known gas volume (8,710 dscf)
P_1 = the pressure of the known gas volume (29.92 inches Hg)
P_2 = the pressure of the corrected gas volume (25.42 inches Hg)

- The altitude corrected volume (V_2) of the flue gas is 10,231 dscf.

For 3% oxygen, using a standard correction ratio as presented in 40 CFR 60, Appendix A, Method 19:

$$F_2 = F_1 \times \frac{20.9}{20.9 - 3.0}$$

Where,

F_2 = the gas volume corrected to 3% oxygen
F_1 = the altitude corrected flue gas volume (10,231 dscf) as calculated in Equation (1)

The oxygen and altitude corrected volume (F_2) of the flue gas is 11,946 dscf/MMBtu of natural gas.

This equation is used to determine the volume of flue gas created by the combustion of 1 million cubic feet of natural gas:

10^6 feet^3 x 1,050 Btu/feet^3 x 11,946 dscf/10^6 Btu = 12.5 x 10^6 dscf

This equation is used to determine the grain loading per cubic foot of flue gas:

7.6 lb PM x 7,000 gr/lb x 1/12.5 x 10^6 dscf = 0.0043 gr/dscf < 0.015 gr/dscf

Emissions factors given in AP-42 are generally accepted as conservative estimates. Even a conservative estimate of emissions from natural gas combustion results in an approximated grain loading well below the standard of 0.015 gr/dscf. Therefore, as long as natural gas is the only form of fuel being combusted in the No. 100 and No. 200 Ammonia Plants, the permittee complies with the grain-loading standard.

No action is required as long as natural gas is the only form of fuel being combusted in the 100 and 200 Ammonia Plants. If any other fuel is used in the 100 and 200 Ammonia Plants, the permittee must report the change immediately to DEQ.

6.2 AMMONIUM SULFATE PLANT STACKS

6.2.1 Emissions Unit Description

Ammonia and sulfuric acid are added to ammsox scrubber liquor and mixed in a crystallizer under vacuum. The resulting slurry is pumped to a basket centrifuge to remove excess liquor. The wet product is dried in a gas-fired dryer, then cooled and screened. The product is then conveyed to the ammonium sulfate storage dome in preparation for shipping. The detailed process description can be found in Simplot's June 2000 Tier I/II operating permit application.

6.2.2 PM, and PM_{10} Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 4.1 - 4.3)

6.2.2.1 Applicable Requirement

The PM and PM_{10} emissions limits were taken from the Tier II operating permit issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

The process weight rate limitation applies to the dryer and the cooler, respectively. It is an applicable requirement in accordance with IDAPA 58.01.01.008.03. According to Simplot's June 2000 Tier I/II application, the dryer and the cooler were last modified after October 1, 1979. Therefore, IDAPA 58.01.01.701 applies to this process equipment. The process weight rate limitation is included in the Tier I operating permit.

2.2.2 Compliance Demonstration

Demonstration of compliance with PM, and PM_{10} emissions limits was either specified in the Tier II Permit No. 077-00006 issued December 3, 1999 or established in accordance with IDAPA 58.01.01.322.01, 06, and 07. The following summarizes the methods to demonstrate compliance:

- Documenting maintenance to control devices and process.
- Proper operation of the control devices established in accordance with IDAPA 58.01.01.322.01.
- Monitoring the scrubbing fluid flow rate as specified in the Tier II Permit No. 077-00006 issued December 3, 1999 and established in accordance with IDAPA 58.01.01.322.01,06, and 07.
- Monitoring the scrubber pressure drop as specified in the Tier II Permit No. 077-00006 issued December 3, 1999 and established in accordance with IDAPA 58.01.01.322.01,06, and 07.
- Developing an O&M manual.
- Performing annual source tests as specified in the Tier II Permit No. 077-00006 issued December 3, 1999 and established in accordance with IDAPA 58.01.01.322.01,06.
- Calculating emissions rate.

According to information in Simplot's June 2000 Tier I/II application, the maximum hourly production rate is 8.3 T/hr or 16,600 lb/hr for the dryer or the cooler. Based on a conservative assumption that the input rate of the dryer, or the cooler, is equal to its output rate, DEQ staff calculated the Process Weight limitation using the equation in IDAPA 58.01.01.701, $E = 1.10(PW)^{0.25}$. Here, PW (process weight) is 16,600 lb/hr. The calculated Process Weight limitation for the dryer, or the cooler, is 12.5 lb/hr. The current permitted limit of 2.44 lb/hr applies to the emissions from both the dryer and the cooler. The Process Weight limitation is higher than the permitted limit; therefore, the permitted limit is more restrictive than the Process Weight limitation.

Simplot submitted a comment to the draft permit on September 30, 2002 requesting recording ammonium sulfate plant production instead of production of the dryer and the cooler in Permit Condition 4.11.1. The change has been made. More discussions can be found in Simplot's October 22, 2002 email. It reads *"Plant production means the amount of Ammonium Sulfate product the plant produces. The amount of product produced is calculated by measuring the flows of the raw material feeds put into the plant. This is more accurate than a measurement of the dry product output of the plant. Everything that goes into the plant goes through the dryer and usually through the cooler. Neither the dryer nor cooler produces anything..."*

6.2.3 CO, NO_x, and SO_2, Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 4.4, 4.5, and 4.6)

6.2.3.1 Applicable Requirement

The CO, NO_x, and SO_2 emissions limits were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

6.2.3.2 Compliance Demonstration

Demonstration compliance of CO, NO_x, and SO_2 emissions limits was either specified in the existing Tier II operating permit issued December 3, 1999 or established in accordance with IDAPA 58.01.01.322.06, 07, and 08. The following summarizes the methods to demonstrate compliance:

- Monitoring and recording natural gas usage and dryer operating hours. This requirement is developed under the authority of IDAPA 58.01.01.06, 07, and 08.
- Calculating emissions rates using the methods specified in the permit.

- Simplot may propose using different emissions factors to estimate CO, NO_x, and SO_2 emissions rates. However, adequate supporting documentation must be provided for using any proposed emissions factors other than those specified in AP-42.

6.2.4 Fugitive Emissions Limits for PM, and PM_{10} [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 4.7 and 4.8)

6.2.4.1 Applicable Requirement

Fugitive emissions limits for PM, and PM_{10} were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

6.2.4.2 Compliance Demonstration

Demonstration of compliance with fugitive emissions limits for PM, and PM_{10} was established in the existing Tier II operating permit issued December 3, 1999. The following summarizes the methods to demonstrate compliance:

- Calculating emissions rates.
- Reasonably controlling fugitive emissions.

6.3 HPB&W BOILER

6.3.1 Emissions Unit Description

The HPB&W boiler (model number FM 106-97) is a $LoNO_X$ burner-equipped, natural gas-fired boiler. It has a steam capacity of 120,000 lbs, and a heat input rating of 175,000 Btu as pointed out in Simplot's September 30, 2002 comments to public comments package of the draft permit. The boiler is used to supply the steam needs of the facility. The boiler is an affected facility under 40 CFR 60.40 Subpart Db. The HPB&W boiler was installed in 2000 and replaced the Foster-Wheeler and Combustion Engineering boilers listed in the application.

6.3.2 CO, NO_x, PM, PM_{10}, SO_2, and VOC Emissions Limits [PTC No. 077-00006, 9/20/00] (Permit Conditions 5.1 to 5.7)

6.3.2.1 Applicable Requirement

Emissions limits for CO, NO_x, PM, PM_{10}, and SO_2 were taken from PTC No. 077-00006 issued September 20, 2000. They are included in the Tier I operating permit.

The NO_x emissions limit of 0.04 lb/MMBtu in the existing PTC issued September 20, 2000 was more stringent than the NSPS limit of 0.1 lb/MMBtu; therefore, the NSPS limit was not specifically listed in the permit. Compliance with the PTC limit will automatically demonstrate compliance with the NSPS limit.

6.3.2.2 Compliance Demonstration

The compliance demonstration methods were taken from the existing PTC issued September 20, 2000. The following summarizes the methods to demonstrate compliance:

- Limiting natural gas usage.
- Limiting fuel type.
- Developing an O&M manual.
- Establishing a CEMS to monitor NO_X emissions.
- Recordkeeping as required by NSPS.
- Complying with reporting requirements.

- The permittee is required to record hours of operation per day in addition to the amount of natural gas used to demonstrate compliance with the hourly natural gas usage limitation.

.4 BABCOCK AND WILCOX BOILER

.4.1 Emissions Unit Description

The boiler is equipped with a COEN QLN, LoNO$_X$ spud-type burner. The boiler has a design capacity of 58,000 lbs of steam per hour and a burner capacity of 63.8 MMBtu/hr. Steam produced by the boiler is piped to various processes within the facility. This boiler is subject to 40 CFR 60 Subpart Dc.

.4.2 CO, NO$_x$, PM, PM$_{10}$, SO$_2$, and VOC Emissions Limits (Permit Conditions 6.1 to 6.7)

.4.2.1 Applicable Requirement

Emissions limits for CO, NO$_x$, PM, PM$_{10}$, and SO$_2$ were taken from PTC No. 077-00006 issued June 16, 1995. They are included in the Tier I operating permit.

.4.2.2 Compliance Demonstration

The compliance demonstration methods were taken from the existing PTC issued June 16, 1995, or 40 CFR 60 Subpart Dc. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06, and 07. The following summarizes the methods to demonstrate compliance:

- Firing by natural gas only.
- Limiting natural gas usage.
- Recording natural gas usage as required in the 40 CFR 60 Subpart Dc and under the authority of IDAPA 58.01.01.322.06, and 07.
- Complying with NSPS notification and recordkeeping requirements.

.5 GRANULATION NO. 1 PROCESS

.5.1 Emissions Unit Group Description

The Granulation No. 1 reactor is used to react a mixture of ammonia, phosphoric acid, gypsum muds, and sulfuric acid to form slurry that supplies the granulation process. The Granulation No. 1 granulator mixes the slurry with recycled fine product. The slurry coats the outside of the recycled product to increase particle size.

The Granulation No. 1 dryer is fired by natural gas and has a maximum production capacity of 54.2 T/hr. It dries the granulated product produced by the granulator.

The product is then screened and the final product is sent to the Granulation No. 1 cooler, where it is cooled for storage. Oversized particles are crushed and sent with undersized particles back to the granulator.

The reactor and granulator emissions, as well as emissions from the transfers associated with getting the material from the granulator to the first belt conveyor, are reduced by being inside the building and vented to Venturi 1, which vents to its own stack. Dryer emissions are reduced by being inside the building and vented to Venturi 2, which vents to its own stack. Cooler emissions are vented to the cooler baghouse. From the baghouse, the emissions are vented to the Granulation No. 1 baghouse stack and/or dryer for use as combustion air. Emissions from the transfers associated with getting the material from the first belt conveyor to the last belt conveyor, before the stockpile and product screens, are reduced by being inside the building. These emissions are vented to the Granulation No. 1 baghouse, which vents to the Granulation No. 1 baghouse stack. Emissions from the product stockpile and from the transfers associated with getting the material from the stockpile to the cross-belts are reduced by being inside the building.

Emissions from the transfers associated with getting the material from the cross-belts to the trucks and railcars are wind protected.

Emissions from the Granulation No. 1 process are created by natural gas combustion and the reacting, granulating, handling, conveying, transfer, screening, cooling, and drying of the granulated product. The emissions consist of PM, PM_{10}, SO_2, CO, NO_X, VOCs, ammonia, fluorides, and trace amounts of cadmium and nickel.

The Granulation No. 1 process is subject to 40 CFR 63 Subpart BB, National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants.

Because phosphate ore is no longer calcined onsite, the radionuclide emissions limits in the existing Tier II operating permit are obsolete. Therefore, they are not included in the Tier I operating permit.

6.5.2 PM and PM_{10} Emissions Limit [Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.702] (Permit Conditions 7.1 and 7.2)

6.5.2.1 Applicable Requirement

The PM and PM_{10} emissions limits in Permit Condition 7.1.1 and 7.2 were taken from the Tier II Permit No. 077-00006, issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

The process weight rate limitation applies to the dryer, the granulator, or the cooler, respectively. It is an applicable requirement in accordance with IDAPA 58.01.01.008.03. According to Simplot's June 2000 Tier I/II application, the dryer and the cooler were last modified after October 1, 1979. Therefore, IDAPA 58.01.01.701 applies to this process equipment. The process weight rate limitation is included in the Tier I operating permit. Process weight (PW) in the process weight rate equations is the material input rate rather than the output rate. The definition of process weight can be found in IDAPA 58.01.01.006.80.

6.5.2.2 Compliance Demonstration

Demonstration of compliance with PM and PM_{10} emissions limits was established in the Tier II Permit No. 077-00006, issued December 3, 1999. Compliance with the requirements in 40 CFR 63 Subpart BB establishes additional control of PM and PM_{10} emissions. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06, 07, and 08. The following summarizes the methods to demonstrate compliance:

- Monitoring the wet scrubber operational parameters to ensure the proper operation of scrubbers.
- Maintaining each scrubber.
- Maintaining the baghouse.
- Monitoring and recording the pressure drop across the baghouse as required in the Tier II Permit No. 077-00006, issued December 3, 1999 and under the authority of IDAPA 58.01.01.322.06.
- Complying with monitoring requirements as required in 40 CFR 63 Subpart BB.
- Conducting annual performance tests.

The reporting requirements are taken from 40 CFR 63 Subpart BB.

Per information in Simplot's June 2000 Tier I/II application, the maximum hourly production rate is 54.2 tons/hr or 108,400 lb/hr for the dryer, the granulator, or the cooler. Based on a conservative assumption that the input rate of the dryer, the granulator, or the cooler is equal to its output rate, DEQ staff calculated the Process Weight limitation using equation in IDAPA 58.01.01.701, $E = 1.12(PW)^{0.27}$. Here PW (process weight) is 108,400 lb/hr. The calculated Process Weight limitation for the dryer, the granulator, or the cooler is 25.6 lb/hr. Currently, a permitted emissions limit applies to the emissions from the dryer stack, the granulator stack, and the cooler stack, which is 23.8 lb/hr. The permitted emissions limit is more stringent than Process Weight limitation.

.5.3 Total Fluoride Emissions Limits [Tier II Permit No. 077-00006, 12/3/99; 40 CFR 63.622(a)] (Permit Condition 7.3)

.5.3.1 Applicable Requirement

The following summarizes the methods for demonstrating and ensuring compliance with the fluoride standards. They are taken from the Tier II Permit No. 077-00006 issued December 3, 1999 or from 40 CFR 63 Subpart BB.

- Monitoring the wet scrubber operational parameters to ensure the proper operation of scrubbers.
- Maintaining each scrubber.
- Complying with monitoring requirements as required in 40 CFR 63 Subpart BB.
- Conducting annual performance tests.

.5.4 NO_X, CO, and SO_2 Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 7.4 to 7.6)

.5.4.1 Applicable Requirement

Emissions limits for NO_X, CO, and SO_2 are taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements for Tier I permitting purposes in accordance with IDAPA 58.01.01.008.03.

.5.4.2 Compliance Demonstration (Permit Conditions 7.20 and 7.21)

The emissions of NO_X, SO_2, CO, and VOC are due to combustion of natural gas in the dryer. The emissions factors for NO_X, CO, and SO_2, in J.R. Simplot's plant expansion permit application analysis are out of date. The emissions factors in the most recent AP-42 (3/98) are used to calculate NO_X, CO, and SO_2 emissions in this Tier I operating permit. This change is under the authorization of IDAPA 58.01.01.322.01, 06, and 07.

.5.5 PM Fugitives, PM_{10} Fugitives, and Fluoride Fugitives Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 7.7 to 7.9)

.5.5.1 Applicable Requirement

Emissions limits for PM fugitives, PM_{10} fugitives, and fluoride fugitives are taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements for Tier I permitting purposes in accordance with IDAPA 58.01.01.008.03.

6.5.5.2 Compliance Demonstration

The emissions factors for PM fugitives, PM_{10} fugitives, and fluoride fugitives, in J.R. Simplot's plant expansion permit application analysis are out of date. The emissions factors and emissions calculation methods specified in Appendix D Air Emissions Inventory in Simplot's June 2000 Tier I/II Application are required to be used. This change is under the authorization of IDAPA 58.01.01.322.01, 06, and 07.

6.6 GRANULATION NO. 2 PROCESS

6.6.1 Emissions Unit Group Description

The Granulation No. 2 process is the same as the Granulation No. 1 process, except that Granulation No. 2 has two stacks.

The requirements for the Granulation No. 2 process are the same as those for the Granulation No. 1 process, except for slightly different emissions limits for each pollutant.

The Granulation No. 2 reactor is used to react a mixture of ammonia, phosphoric acid, gypsum muds, and sulfuric acid to form a slurry that supplies the granulation process. The Granulation No. 2 granulator mixes the slurry with recycled fine product. The slurry coats the outside of the recycled product to increase particle size.

The Granulation No. 2 dryer is fired by natural gas and has a maximum production capacity of 52.1 T/hr. It dries the granulated product produced by the granulator.

Emissions from the dryer, reactor, and granulator are controlled by a Mikropul cyclonic scrubber, which is called the tailgas scrubber by the facility.

The product is then screened and the final product is sent to the Granulation No. 2 cooler, where it is cooled for storage. Oversized particles are crushed and sent with undersized particles back to the granulator. Emissions from the cooler, reject hopper, conveyors, screens, and elevators are controlled by a Mikropul baghouse.

Emissions from the reactor, granulator, and dryer are reduced because they are inside the building and vented to the tailgas scrubber and through one stack. Emissions from the cooler are controlled by the cooler baghouse. The emissions from screens, elevators, reject hopper, conveyors, and transfer points are reduced by being inside the building and are vented to the Granulation No. 2 baghouse. Emissions from both baghouses are vented to Granulation No. 2 baghouse stack. When the combustion air demand for the dryer burner exceeds the amount supplied by the cooler baghouse effluent, the Granulation No. 2 baghouse effluent is used to make up the difference. That portion of the baghouse effluent not supplied to the burner is vented through the Granulation No. 2 baghouse stack to the atmosphere. Emissions from the product stockpile and from the transfers associated with getting the material from the stockpile to the cross-belts are reduced by being inside the building. Emissions from the transfers associated with getting the material from the cross-belts to the trucks and railcars through chutes are wind protected.

Emissions from the Granulation No. 2 process are created by natural gas combustion and the reacting, granulating, handling, conveying, transfer, screening, cooling, and drying of granulated product. The emissions consist of PM, PM_{10}, SO_2, CO, NO_x, VOCs, ammonia, fluorides, and trace amounts of cadmium, chromium, and nickel.

The Granulation No. 2 process is subject to 40 CFR 63 Subpart BB, National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants.

Because phosphate ore is no longer calcined onsite, the radionuclide emissions limits in the existing Tier II operating permit are obsolete. Therefore, radionuclide emissions limits are not included in the Tier I operating permit.

6.6.2 PM and PM_{10} Emissions Limit [Tier II Permit No. 077-00006, 12/3/99; Process Weight Rate-IDAPA 58.01.01.702] (Permit Conditions 8.1 and 8.2)

6.6.2.1 Applicable Requirement

The PM and PM_{10} emissions limits in Permit Conditions 8.1.1 and 8.2 were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

The process weight rate limitation in IDAPA 58.01.01.703 is an applicable requirement in accordance with IDAPA 58.01.01.008.03. Therefore, it is included in Permit Condition 8.1.2. The process weight rate limitation applies to each emissions source, respectively. Process weight (PW) in the process weight rate equations is the material input rate rather than the output rate. The definition of process weight can be found in IDAPA 58.01.01.006.80.

.6.2.2 Compliance Demonstration

Demonstration of compliance for PM emissions limits was established in the Tier II Permit No. 077-00006 issued December 3, 1999. Compliance with the requirements in 40 CFR 63 Subpart BB establishes additional control of PM emissions. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06. The following summarizes the methods to demonstrate compliance:

- Monitoring the wet scrubber operational parameters to ensure the proper operation of scrubbers.
- Maintaining each scrubber.
- Maintaining the baghouse.
- Monitoring and recording the pressure drop across the baghouse as required in the Tier II Permit No. 077-00006 issued December 3, 1999 and under the authority of IDAPA 58.01.01.322.06.
- Complying with the monitoring requirements in accordance with 40 CFR 63 Subpart BB
- Conducting annual performance tests.

The reporting requirements are taken from 40 CFR 63 Subpart BB.

.6.3 Total Fluoride Emissions Limits [Tier II Permit No. 077-00006, 12/3/99; 40 CFR 63.622(a)] (Permit Condition 8.3)

.6.3.1 Applicable Requirement

Fluoride emissions limits are taken from the Tier II Permit No. 077-00006 issued December 3, 1999, or 40 CFR 63 Subpart BB. They are applicable requirements for Tier I permitting purposes in accordance with IDAPA 58.01.01.008.03.

.6.3.2 Compliance Demonstration

The following summarizes the methods for demonstrating and ensuring compliance with the fluoride standards. They are taken from the Tier II Permit No. 077-00006 issued December 3, 1999, or 40 CFR 63 Subpart BB.

- Monitoring the wet scrubber operational parameters to ensure the proper operation of scrubbers.
- Maintaining each scrubber.
- Complying with monitoring requirements as required in 40 CFR 63 Subpart BB.
- Conducting annual performance tests.

6.6.4 NO_X, CO, and SO_2 Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 8.4 to 8.6)

6.6.4.1 Applicable Requirement

Emissions limits for NO_X, CO, and SO_2 are taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements for Tier I permitting purposes in accordance with IDAPA 58.01.01.008.03.

6.6.4.2 Compliance Demonstration (Permit Conditions 8.20 and 8.21)

The emissions of NO_X, SO_2, CO, and VOC are due to combustion of natural gas in the dryer. The emissions factors for NO_X, CO, and SO_2, in J.R. Simplot's plant expansion permit application analysis are out of date. The emissions factors in the most recent AP-42 (3/98) are used to calculate NO_X, CO, and SO_2 emissions in this Tier I operating permit. This change is under the authorization of IDAPA 58.01.01.322.01, 06, and 07.

6.6.5 PM Fugitives, PM_{10} Fugitives, and Fluoride Fugitives Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 8.7 to 8.9)

6.6.5.1 Applicable Requirement

Emissions limits for PM fugitives, PM_{10} fugitives, and fluoride fugitives are taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements for Tier I permitting purposes in accordance with IDAPA 58.01.01.008.03.

6.6.5.2 Compliance Demonstration

The emissions factors for PM fugitives, PM_{10} fugitives, and fluoride fugitives, in J.R. Simplot's plant expansion permit application analysis are out of date. The emissions factors and emissions calculation methods specified in Appendix D, Air Emissions Inventory in Simplot's June 2000 Tier I/II Application, are required to be used. This change is under the authorization of IDAPA 58.01.01.322.01, 06, and 07.

6.7 GRANULATION NO. 3 PROCESS

6.7.1 Emissions Unit Group Description

Prior to the plant modification (including the addition of the defluorination process), the Granulation No. 3 process made a product by reacting phosphoric acid with sulfuric acid and ammonia. The plant modification did not eliminate the facility's ability to add ammonia to the process; therefore, the permit includes conditions that must be met if the facility adds ammonia to the Granulation No. 3 process to generate diammonium and/or monoammonium phosphate. After the modification, the Granulation No. 3 process manufactures a low fluoride product by mixing limestone and defluorinated phosphoric acid.

The defluorination process consists of two reaction vessels where phosphoric acid is combined with diatomaceous earth from the diatomaceous earth silo. A baghouse controls emissions from the transfer of approximately 8 T/day of diatomaceous earth. The baghouse also provides a side stream of air to strip fluoride from the treated phosphoric acid. The fluoride-enriched air is then sent to the scrubber.

Granulated limestone from the limestone silo is compressed and placed in the scale bin, then transferred to the mixer where steam is introduced. The mixture is agitated to form slurry.

Phosphoric acid from either the defluorination process or the Phosphoric Acid Plant and water are blended, then pumped into the blender and mixed with the limestone slurry.

This mixture is transferred to the blunger where additional limestone, acid, and recycled material from the recycle drag are added. Emissions from the blunger are vented through the scrubber.

The mixture is then fed to the dryer. The Granulation 3 dryer is fired by natural gas and has a maximum production capacity of 31.3 T/hr. Emissions from the dryer are vented through the scrubber.

The product is then screened and the final product is sent to storage. Oversized particles are milled and sent with undersized particles back to the Mixer.

Emissions from the scale, conveyors, screens, and elevators are controlled by the scrubber.

Emissions from the Granulation 3 process are created by natural gas combustion, defluorination of phosphoric acid, and the mixing, handling, conveying, transfer, screening, and drying of product. The emissions consist of PM, PM_{10}, SO_2, CO, NO_X, VOCs, fluorides, and trace amounts of cadmium and nickel.

The Granulation No. 3 process is subject to 40 CFR 63 Subpart BB, National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants when making diammonium and/or monoammonium phosphate.

When the operating permit was issued in 1995, the Granulation No. 3 process made a product by reacting phosphoric acid, sulfuric acid, and ammonia with other products. The Granulation No. 3 emissions were vented through one stack. Therefore, the entire Granulation No. 3 process was given one emissions rate based on the premise that all emissions from the Granulation No. 3 process exited to the atmosphere through a single stack.

On November 12, 1999, the facility received a PTC for a defluorination project at Granulation No. 3. The defluorination project included adding the diatomaceous earth baghouse. The baghouse was given a PM_{10} limit and fluoride limit. The PM_{10} and fluoride limits for the Granulation No. 3 stack were reduced to 1.7 lb/hr and 7.45 T/yr, respectively.

On December 3, 1999, a revised operating permit was issued with one emissions limit. The revised operating permit was based on the assumption that the facility was producing the same type of product and the process had not changed since the defluorination project was under construction and was not in operation.

On October 16, 2001, a PTC was issued for a modification to the Granulation No. 3 Plant. The modification included new emissions limits for most pollutants from the Granulation No. 3 stack, but the PTC did not address emissions from the limestone baghouse or the diatomaceous earth baghouse.

Because phosphate ore is no longer calcined onsite, the radionuclide emissions limits in the existing Tier II operating permit now are obsolete. Therefore, it is not included in the Tier I operating permit.

5.7.2 PM Emissions Limits [PTC No. 077-00006, 12/12/01] (Permit Condition 9.1.1) and Process Weight Rate [IDAPA 58.01.01.702] (Permit Condition 9.1.2)

5.7.2.1 Applicable Requirement

The emissions limits in Permit Condition 9.1.1 were taken from PTC No. 077-00006, issued December 12, 2001.

The process weight rate limitation in IDAPA 58.01.01.703 is an applicable requirement in accordance with IDAPA 58.01.01.008.03. Therefore, it is included in Permit Condition 9.1.2. Process weight (PW) in the process weight rate equations is the material input rate rather than the output rate. The definition of process weight can be found in IDAPA 58.01.01.006.80.

6.7.2.2 Compliance Demonstration

Demonstration of compliance with PM emissions limits was established in the existing PTCs. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06. The following summarizes the methods to demonstrate compliance:

- Limiting the P_2O_5 equivalent feed rate.
- Ensuring the proper operation of the scrubber.
- Limiting fuel usage.
- Conducting annual performance tests as required in the Tier II Permit No. 077-00006 issued December 3, 1999, PTC No. 077-00006 issued on December 12, 2001, and under the authority of IDAPA 58.01.01.322.06.

- Development of an O&M manual.
- Monitoring the P_2O_5 equivalent feed rate, pressure drop, and liquid flow rate through the scrubber, and fuel usage.

Permit Condition 9.1.1 from the PTC No. 077-00006, issued October 16, 2001, is more stringent than the process weight rate limitation. Therefore, compliance with Permit Condition 9.1.1 is considered compliance with the process weight rate limitation for processes controlled by Entoleter scrubber.

The permittee will comply with the process weight rate limitation for each baghouse, as long as the permittee properly operates the baghouse as required in Permit Conditions 9.12 and 9.15.

The permittee shall calculate the hourly emissions rate to demonstrate compliance with the process weight rate limitation for the east dry bulking station.

6.7.3 PM_{10} Emissions Limits [PTC No. 077-00006, 12/12/01; PTC No. 077-00006, 6/28/99] (Permit Conditions 9.2.1 and 9.2.2)

6.7.3.1 Applicable Requirement

The emissions limits in Permit Condition 9.2.1 are taken from PTC No. 077-00006, issued December 12, 2001. The emissions limits in Permit Condition 9.2.2 are taken from PTC No. 077-00006, issued June 28,1999. They are applicable requirements per IDAPA 58.01.01.008.03.

6.7.3.2 Compliance Demonstration

The compliance methods for Permit Condition 9.2.1 are the same as that for PM emissions limits. They are taken from the existing PTCs. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06, 07, and 08.

The compliance methods for Permit Condition 9.2.2 are taken from the existing PTCs. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06.

The following summarizes the methods to demonstrate compliance:

- Limiting the P_2O_5 equivalent feed rate.
- Ensuring the proper operation of the diatomaceous earth baghouse.
- Limiting fuel usage.
- Conducting annual performance tests as required in the Tier II Permit No. 077-00006 issued December 3, 1999, PTC No. 077-00006 issued on December 12, 2001, and under the authority of IDAPA 58.01.01.322.06.
- Developing an O&M manual.
- Monitoring the P_2O_5 equivalent feed rate and pressure drop across the diatomaceous earth baghouse.

6.7.4 Total Fluorides Emissions Limits [PTC 077-00006, 12/12/01; 40 CFR 63 BB]

6.7.4.1 Applicable Requirement

The total fluorides emissions limits in Permit Condition 9.3 are taken from PTC No. 077-00006, issued December 12, 2001.

The permittee is currently producing a low fluoride mono-, bi-, or calcium-phosphate product used to make livestock supplement and specialty fertilizers. However, this process is capable of making diammonium and/or monoammonium phosphate. Therefore, this process is subject to 40 CFR 63 Subpart BB when making diammonium and/or monoammonium phosphate.

7.4.2 Compliance Demonstration

Demonstration compliance for total fluorides emissions limits was established in the existing PTCs. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.06. The following summarizes the methods to demonstrate compliance:

- Limiting the P_2O_5 equivalent feed rate.
- Ensuring the proper operation of the scrubber.
- Ensuring regular maintenance.
- Conducting annual performance tests as required in the Tier II Permit No. 077-00006 issued December 3, 1999, PTC No. 077-00006 issued on December 12, 2001, and under the authority of IDAPA 58.01.01.322.06.
- Developing an O&M manual.
- Monitoring the P_2O_5 equivalent feed rate, pressure drop, and liquid flow rate through the scrubber, and fuel usage.

When applicable, the permittee shall demonstrate compliance with the requirements in 40 CFR 63 Subpart BB using methods specified in that subpart.

.7.5 NO_X, SO_2, CO, and VOC Emissions Limits [PTC No. 077-00006, 12/12/01; IDAPA 58.01.01.322.06, 07] (Permit Conditions 9.4, 9.5, 9.6, and 9.7)

.7.5.1 Applicable Requirement

The emissions limits for NO_X, SO_2, CO, and VOC were taken from PTC No. 077-00006 issued December 12, 2001.

.7.5.2 Compliance Demonstration

The emissions of NO_X, SO_2, CO, and VOC are due to the combustion of natural gas in the dryer. Demonstration compliance of the emissions limits was established in the existing PTCs. Any additional required monitoring is under the authority of IDAPA 58.01.01.322.01, and 06. The following summarizes the methods to demonstrate compliance:

- Limiting the dryer's maximum rated heat input.
- Calculating emissions limits under the authority of IDAPA 58.01.01.322.01, and 06.
- Monitoring the dryer's 24-hour average heat input.

6.7.6 PM, PM_{10}, and Fluoride Fugitives Emissions Limits - excluding the East Dry Bulking Station [PTC 077-00006, 12/12/01] (Permit Conditions 9.8, 9.9, and 9.10)

6.7.6.1 Applicable Requirement

The fugitive emissions limits for PM, PM_{10}, and fluoride were taken from PTC No. 077-00006, issued December 12, 2001.

6.7.6.2 Compliance Demonstration

The following summarizes the methods for demonstrating and ensuring compliance with PM, PM_{10}, and fluoride emissions limits as taken from the existing PTC:

- Limiting the P_2O_5 equivalent feed rate.
- Calculating emissions limits.

- **Fugitive emissions from the East Dry Bulking Station**

Fugitive emissions from the east dry bulking station were not addressed in the PTC No. 077-00006 issued on December 13, 1995. It needs to be addressed in the Tier II operating permit that will be issued in the near future.

6.8 GYPSUM STACKS/PILES

6.8.1 Emissions Unit Description

Slurried gypsum from the Phosphoric Acid Plant is combined with process water and flows to the gypsum thickener. Dewatered gypsum slurry is pumped to the gypsum stack. The gypsum stack consists of three primary ponds/cells separated by dikes and levies. Gypsum slurry is collected in one cell while the other cells are allowed to dewater, leaving gypsum. Backhoes move the gypsum up around the edges of the drying cells and bulldozers spread and compact the material to increase the stack capacity. With the new edges in place, the slurried gypsum feed lines are diverted to the dewatered cells and allowed to dewater. Water used to transport gypsum to the gypsum stack is decanted and recycled back to the process to be used as process water. The decanted water can not be fed to the Reclaim Cooling Tower. Additional information regarding this process is provided in the June 2000 Tier I/II operating permit application and the July 1995 Tier I operating permit application.

The emissions points associated with the gypsum stack can be found in Appendix A of this memorandum.

6.8.2 Total Fluoride and PM_{10} Emissions Limits [Tier II Permit No. 077-00006, 12/3/99]

6.8.2.1 Applicable Requirement

Total fluorides and PM_{10} emissions limits from the gypsum stack were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

6.8.2.2 Compliance Demonstration

As specified in Permit Condition 10.9, the method specified in Simplot's June 29, 2000 Tier I/II application Appendix D Air Emissions Inventory can be used to demonstrate compliance with the emissions limits.

6.8.3 Gypsum Stacks and Radon Emissions Limits [40 CFR 61 Subpart R and Subpart A]

6.8.3.1 Applicable Requirement

As defined in 40 CFR 61.200, the gypsum stacks are subject to the requirements under 40 CFR 61 Subpart R. These are applicable requirements per IDAPA 58.01.01.008.03 for this Tier I operating permit.

6.8.3.2 Compliance Demonstration

Currently, the gypsum stacks are active. Therefore, they are only subject to the phosphogypsum placement and removal requirements. However, if the gypsum stacks become classified as inactive, the permittee is then immediately subject to the Radon-222 emissions limits and its related requirements in 40 CFR 61 Subpart R.

6.9 NITRIC ACID PLANT

6.9.1 Emissions Unit Description

This process involves making liquid nitric acid, urea, and several grades of fertilizer. Nitric acid is made by the combustion of ammonia in air and the subsequent absorption of the combustion products in water. Urea is produced from the reaction of CO_2 with ammonia. Several grades of fertilizer are made by blending ammonia, nitric acid, and urea in aqueous mixtures.

Additional information regarding this process can be found in the June 2000 Tier I/II operating permit application, the July 1995 Tier I operating permit application, and AP-42, Section 8.8 (1/95).

The Simplot Don Siding Nitric Acid Plant was last modified in 1996; therefore, it is subject to 40 CFR 60 Subpart G, Standards of Performance for Nitric Acid Plants, per the 2000 Tier I/II application. The Nitric Acid Plant is also subject to requirements under 40 CFR 60 Subpart A , General Provision. The maximum hourly rate is 80 T/day HNO_3 expressed as 100% HNO_3.

According to the 2000 I/II application, the Nitric Acid Plant emits 182.5 T/yr of ammonia. There are no applicable requirements for ammonia in the Tier II Permit No. 077-00006, dated December 3, 1999. However, this should be addressed in the future Tier II operating permit.

The emissions points associated with the Nitric Acid Plant can be found in Appendix A of this memorandum.

6.9.2 NO_x Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 11.1 and 11.2)

6.9.2.1 Applicable Requirement

Nitrogen oxides emissions limits in Permit Condition 11.1 and 11.2 were taken from the Tier II Permit No. 077-00006 issued December 3, 1999, and 40 CFR 60 Subpart G. They are applicable requirements per IDAPA 58.01.01.008.03.

6.9.2.2 Compliance Demonstration

Demonstration of compliance with NO_x emissions limits was either specified in the Tier II Permit No. 077-00006 issued December 3, 1999, 40 CFR 60 Subpart G, or established in accordance with IDAPA 58.01.01.322.06, .07, and .08. The following summarizes the methods to demonstrate compliance:

- Complying with monitoring requirements specified in 40 CFR 60 Subpart G (see Appendix C of this memorandum).
- Calculating the annual emissions rate.
- Conducting an annual source test.
- Submitting CEMS data to DEQ.
- Complying with the requirements in NSPS Subpart A, *General Provisions*.

6.9.3 Opacity Standard [Tier II Permit No. 077-00006, 12/3/99 and 40 CFR 60 Subpart G] (Permit Condition 11.3)

6.9.3.1 Applicable Requirement

The Nitric Acid Plant is subject to 40 CFR 60.72(a)(2) visible emissions limit. Under IDAPA 58.01.01.008.03, this is an applicable requirement for the Tier I operating permit.

6.9.3.2 Compliance Demonstration

Demonstration compliance of visible emissions limit was specified in the existing Tier II operating permit, issued December 3, 1999, or established in accordance with IDAPA 58.01.01.322.06, 07, and 08. The following summarizes the methods to demonstrate compliance:

- Performing weekly visible emissions readings.
- Completing visible emissions reading during annual source testing.
- Complying with the requirements in NSPS Subpart A, *General Provisions*.

6.9.4 Fugitive Reasonable Control [Tier II Permit No. 077-00006, 12/3/99; IDAPA 58.01.01.650-651] (Permit Condition 11.4)

6.9.4.1 Applicable Requirement

The requirement of reasonable control of fugitive emissions was taken from the Tier II operating permit, issued December 3, 1999. This is also required under IDAPA 58.01.01.650-651. It is an applicable requirement per IDAPA 58.01.01.008.03.

6.9.4.2 Compliance Demonstration

Ensuring compliance with this requirement was specified in the existing Tier II operating permit, issued December 3, 1999, and the facility-wide section of this permit. The following summarizes the methods to demonstrate compliance:

- Maintaining the control equipment and ventilation equipment system in good working condition.
- Complying with fugitive control requirements in Permit Condition 2.1 to 2.4.

6.10 PHOSPHORIC ACID PLANT/WET-PROCESS PHOSPHORIC ACID PROCESS LINE

6.10.1 Emissions Unit Description

The Phosphoric Acid Plant produces purified phosphoric acid for a variety of intermediate and end products, including merchant grade acid. The plant uses the following equipment:

- Digester/reactor – the ore slurry, sulfuric acid, and recycled acid are fed into the digester/reactor. The chemical reaction yields phosphoric acid (approximately 27% P_2O_5 content) and calcium sulfate crystals known as phosphogypsum.

- Vacuum belt filter – separates the slurry of phosphoric acid and phosphogypsum, allowing the gypsum to be delivered to the thickener and the phosphoric acid to proceed for further refining. (The precipitated gypsum is pumped to the 'gypsum stack'.)

- Vacuum evaporator – concentrates incoming feed phosphoric acid to approximately 50% P_2O_5.

- Contact barometric condenser – draws the vacuum on the evaporator. The condenser requires a hot well to maintain the necessary vacuum and collect the condensate. The condensate is then transferred into the hot pit. The effluent from the hot pit is fed to the evaporative cooling tower.

- Hot wells (which may also be called seal cans, hot pits, and filtrate cans) – retain the vacuum in critical equipment, collect effluent, and process fluids from the evaporation processes.

The structure surrounding the equipment, particularly above the belt filters, has unobstructed windows. In Simplot's September 30, 2002 public comments to the draft permit, Simplot stated "*openings in the building were considered in the context of the relatively large volume of air ventilated from the building. This consideration is part of the PM_{10} SIP.*"

Because phosphate ore is no longer calcined onsite, the radionuclide emissions limits in the existing Tier II operating permit are obsolete. Therefore, it is not included in the Tier I operating permit.

10.2 Fluoride Emissions Limits [40 CFR 63 Subpart AA; Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 12.1)

10.2.1 Applicable Requirement

Simplot's Phosphoric Acid Plant is subject to 40 CFR 63 Subpart AA, National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants.

According to Simplot's June 2000 Tier I/II application, the Phosphoric Acid Plant was last modified in 1992. Therefore, the phosphoric acid plant qualifies as an existing facility under 40 CFR 63.609. As such, it is subject to the total fluorides standard for existing sources under 40 CFR 63.602(a), which can be found in the permit.

The Phosphoric Acid Plant is also subject to emissions limits set in the Tier II Permit No. 077-00006 issued December 3, 1999. The aforementioned requirements are applicable requirements for Tier I operating permit per IDAPA 58.01.01.008.03.

.10.2.2 Compliance Demonstration

Demonstration compliance of total fluorides emissions limits is specified in the Tier II Permit No. 077-00006 issued December 3, 1999, and is provided in the 40 CFR 63 Subpart AA, MACT. The following summarizes the methods to demonstrate compliance:

- Complying with operating requirements of the wet scrubber.
- Performing regular maintenance on each scrubber.
- Monitoring and recording P_2O_5 feed rate.
- Conducting an annual source test and determining compliance.
- Complying with 40 CFR 63.607 for notification, recordkeeping, and reporting requirements.
- Complying with the requirements of the general provisions in 40 CFR 63, Subpart A.

The unique operation of the Phosphoric Acid Plant raises some concern about complying with the MACT standard. Under MACT, emissions from the chemicals processed in evaporators, reactors, filters, and hot wells must be processed so that total fluoride emissions do not exceed the stated limits.

3.10.3 Total Reduced Sulfur Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 12.4)

3.10.3.1 Applicable Requirement

The total reduced sulfur emissions limits were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are included in the Tier I operating permit as they are applicable requirements per IDAPA 58.01.01.008.03.

6.10.3.2 Compliance Demonstration

A one-time performance source test is required in Permit Condition 12.14.

6.10.4 PM and PM_{10} Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 12.2 and 12.3)

6.10.4.1 Applicable Requirement

The emissions limits for PM and PM_{10} were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are included in the Tier I operating permit as they are applicable requirements per IDAPA 58.01.01.008.03.

Pre Simplot's September 30, 2002 public comments to the draft permit, the wet-process Phosphoric Acid Plant was last modified in 1985-1986. Therefore, it qualifies as an existing source and is subject to IDAPA 58.01.01.701 for process weight rate limitations.

6.10.4.2 Compliance Demonstration

Demonstrating compliance with PM and PM_{10} emissions limits is specified either in the Tier II Permit No. 077-00006 issued December 3, 1999, or in 40 CFR 63 Subpart AA, MACT, or is established in accordance with IDAPA 58.01.01.322.06. The following summarizes the methods to demonstrate compliance:

- Conducting annual performance source tests as required in the Tier II Permit No. 077-00006 issued December 3, 1999, and under the authority of IDAPA 58.01.01.322.06.
- Following MACT requirements.
- Conducting scrubber maintenance.

6.10.5 PM_{10} Fugitive Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 12.5)

6.10.5.1 Applicable Requirement

PM_{10} fugitive emissions limits were taken from the Tier II Permit No. 077-00006 issued December 3, 1999. They are included in the Tier I operating permit, as they are applicable requirements per IDAPA 58.01.01.008.03.

6.10.5.2 Compliance Demonstration

According to the December 3, 1999 Tier II Permit No. 077-00006, the PM_{10} emissions were determined from PM_{10} Air Quality Improvement Plan for Power and Bannock Counties dated May 1993. The related information in this document is included in Appendix E of this technical memorandum.

6.11 PLANT ROADS

6.11.1 Emissions Unit Description

Light-duty and heavy-duty vehicles use plant roads to transport personnel and materials within the facility. Fugitive particulate emissions may occur as vehicles traverse the roads.

6.11.2 PM/PM_{10} Emissions Limits

6.11.2.1 Applicable Requirement

Fugitive PM and PM_{10} pound per hour and ton per year emissions limits are taken from section 2.1 and Appendix B of the December 3, 1999 Tier II Permit No. 077-00006. The permittee had listed those emissions limits in section 5.15 of its June 29, 2000 Tier I operating permit application. They have been included in the Tier I operating permit in accordance with IDAPA 58.01.01.322.01.

6.11.2.2 Compliance Demonstration

The December 3, 1999 Tier II Permit No. 077-00006 specified the methods used to determine compliance with PM and PM_{10} fugitive emissions limits. These methods are included with the emissions limits in Permit Conditions 13.1 and 13.2.

12 RECLAIM COOLING TOWER CELLS PLANT/EVAPORATIVE COOLING TOWER

12.1 Emissions Unit Description

This process involves cooling process water from Simplot's manufacturing plants in direct-contact cooling towers. There are three cooling towers (north reclaim, east reclaim, and west reclaim), with eight total cooling tower cells. Additional information regarding this process is provided in the June 2000 Tier I/II operating permit application, the July 1995 Tier I operating permit application, and AP-42 Section 13.4 (1/95). According to the information in July 1995 Tier I operating permit application, no chromium-based water treatment chemicals were used in the cooling tower. Therefore, the process is not subject to 40 CFR 63 Subpart Q.

The emissions points associated with the reclaim cooling towers can be found in Appendix A of this memorandum.

Each cooling tower contains a mist eliminator that reduces water droplets. By reducing Th water droplets, the emissions of particulate matter and fluoride are reduced. Simplot's September 30, 2002 public comments indicated that the mist eliminators are an integral part of the cooling tower.

.12.2 PM_{10} and PM Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Conditions 14.1 and 14.2)

.12.2.1 Applicable Requirement

Particulate matter and PM_{10} emissions limits were taken from the Tier II operating permit issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

The process weight rate limitation applies to the cooling tower. It is an applicable requirement in accordance with IDAPA 58.01.01.008.03. According to Simplot's June 2000 Tier I/II application, the cooling tower was last modified after October 1, 1979. Therefore, IDAPA 58.01.01.701 applies to this process equipment. The process weight rate limitation is included in the Tier I operating permit.

.12.2.2 Compliance Demonstration

Demonstration of compliance with PM and PM_{10} emissions limits was either specified in the existing Tier II operating permit issued December 3, 1999 or established in accordance with IDAPA 58.01.01.322.06, and 07. The following summarizes the methods to demonstrate compliance:

- Monitoring total suspended solid and total dissolved solid inlet and outlet flowrate, and calculating PM emissions under the authority of IDAPA 58.01.01.322.06, and 07. See more discussions on Permit Condition 14.9 under Section 6.12.3.2 of this technical memorandum.
- Operating the mist eliminator as required in the Tier II Permit No. 077-00006 issued December 3, 1999, and under the authority of IDAPA 58.01.01.322.01, and 07.
- Conducting annual source testing as required in the Tier II Permit No. 077-00006 issued December 3, 1999, and under the authority of IDAPA 58.01.01.322.06.

Staff does not foresee the exceedance of the process weight rate limitation; therefore, no monitoring requirement for this limitation was required in the permit.

6.12.3 Total Fluoride Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 14.3)

6.12.3.1 Applicable Requirement

Total fluoride emissions limits in Permit Condition 14.3 were taken from the Tier II operating permit issued December 3, 1999. They are applicable requirements per IDAPA 58.01.01.008.03.

6.12.3.2 Compliance Demonstration

Demonstration of compliance with total fluoride emissions limits was specified in the existing Tier II operating permit issued December 3, 1999, MACT, or established in accordance with IDAPA 58.01.01.322.06, and 07. The following summarizes the methods to demonstrate compliance:

- Operating the cooling tower in accordance with MACT requirements.
- Monitoring fluoride inlet and outlet flowrate, and calculating fluoride emissions under the authority of IDAPA 58.01.01.322.06, and 07.
- Complying with visible emissions limits.
- Operating the mist eliminator as required in the Tier II Permit No. 077-00006 issued December 3, 1999, and under the authority of IDAPA 58.01.01.322.01, and 07.
- Conducting annual source testing as required in the Tier II Permit No. 077-00006 issued December 3, 1999, and under the authority of IDAPA 58.01.01.322.06.

The monitoring requirements in Permit Condition 14.9 were developed under the authority of IDAPA 58.01.01.322.06. IDAPA 58.01.01.322.06 requires Tier I operating permits to contain *"sufficient monitoring to ensure compliance with all of the terms and conditions of the Tier I operating permit."* The monitoring requirements under Permit Condition 14.9 are needed to ensure compliance with emissions limits in Permit Conditions 14.1, 14.2, and 14.3.

Simplot has recorded exceedances of the annual fluoride in vegetation standard (40 ppm) in one field for each of the past three years (1999, 2000, and 2001). Among the permitted total fluorides emissions, 50% of them are from the reclaim cooling towers. J.R. Simplot Don Siding plant is located in Power County, which is classified as a moderate nonattainment area for PM_{10}. It is important to ensure that Simplot meets the PM_{10} emissions limits set in the permit. Among the permitted PM_{10} emissions, 30% of them are from the reclaim cooling towers. In addition, currently, the annual source test requirement in the Tier II operating permit issued December 3, 1999 can not ensure the compliance of the emissions limits for the following reasons:

- The effluents being fed to the reclaim cooling towers varies greatly. It is not practicable to source-test at worst-case normal operating conditions as required in IDAPA 58.01.01.157. Therefore, there is a great possibility that the emissions from the cooling towers at another time will be higher than during the source test.

- The diameter of the cooling tower cell is about 1.5 meters. The source test probe was located on the top of the cell during the source test. The accuracy of the source test is not clear.

Therefore, using monitoring method specified in Permit Condition 14.9 to ensure compliance with the total fluorides, and PM_{10} emissions limits of the reclaim cooling towers becomes necessary. The monitoring method in Permit Condition 14.9 uses material balance to estimate the total fluorides and PM_{10} emissions from the reclaim cooling towers to the atmosphere. This method is more accurate and more conservative than source tests.

6.12.4 Inlet Streams Standard [40 CFR 63.602(e)] (Permit Condition 14.4)

6.12.4.1 Applicable Requirement

Simplot shall not introduce any liquid effluent from any wet scrubbing device that controls emissions from process equipment into the reclaim cooling towers per 40 CFR 63.602(e). (Specifically, 40 CFR Subpart AA, National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants,) Under IDAPA 58.01.01.008.03, this is an applicable requirement for the Tier I operating permit.

12.4.2 Compliance Demonstration

Demonstration of compliance with this requirement was specified in 40 CFR 63 Subpart AA, and established in accordance with IDAPA 58.01.01.322.06, 07, and 08. The following summarizes the methods to demonstrate compliance:

- Providing certification to the EPA administrator.
- Identifying the entire flow path of all scrubber outputs and submitting to the Department on or before the issuance of this permit under the authority of IDAPA 58.01.01.322.01.

13 SUPERPHOSPHORIC ACID PLANT PLANT/SUPERPHOSPHORIC ACID PROCESS LINE-PHOSPHORIC ACID MANUFACTURING PLANT

13.1 Emissions Unit Description

In the SPA process, merchant grade phosphoric acid (0-54-0), 54% P_2O_5 acid from the wet-phosphoric acid production line, is further evaporated to superphosphoric acid concentration (0-68-0) of approximately 70% P_2O_5. Filtration of suspended solids and chemical oxidation of organic material are ancillary steps in SPA production. A description of the SPA process is included below with discussion of air pollutant emissions and control devices:

- Acid evaporation – Incoming feed phosphoric acid is vacuum evaporated in equipment similar to the Phosphoric Acid Plant evaporators. The vaporization of constituent compounds, such as water, concentrates the remaining phosphoric acid into SPA. The vapors extracted in this process are condensed in a condenser. The remaining vapors are processed through the primary control scrubber to capture fluoride emissions prior to discharge to the atmosphere. The primary control scrubber effluent is sent to the gypsum thickener and finally the gypsum stack.

- Acid oxidation – SPA is transported to an oxidation reaction vessel where residual impurities are oxidized by HNO_3. The oxidation of the impurities clarifies the SPA and it takes on a brilliant green color inherent to phosphoric acid. The NO_x produced during oxidation is collected, pressurized, and then extracted from the effluent stream in two extended absorption scrubbers. The extended absorption scrubber effluent is processed through the primary control scrubber prior to discharge to the atmosphere.

- Acid aging and cooling – SPA is allowed to cure in aging tanks prior to cooling in a heat exchanger. The aging allows time for residual reactions to go to completion.

- Pressure leaf filter – The cooled SPA solution is delivered to a pressure leaf filter where the acid is separated under pressure from the cake. The liquid superphosphoric acid is delivered to product storage.

5.13.2 Point Source Fluoride Emissions [40 CFR 63 Subpart AA] (Permit Condition 15.1.1)

6.13.2.1 Applicable Requirement

Total fluoride emissions, as elemental fluorine and all fluoride compounds (including the hazardous air pollutant [HAP] hydrogen fluoride), are limited by 40 CFR 63 Subpart AA, National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants) to 0.010 lbs/T of equivalent P_2O_5 feed. Each evaporative cooling tower (direct-contact), evaporator, hot well, acid sump, and cooling tank used in manufacturing SPA must have its volatile emissions controlled. J.R. Simplot refers to hot wells by many different names including, but not limited to, seal cans and filtrate cans.

5.13.2.2 Compliance Demonstration

Operating, monitoring, and recordkeeping requirements to demonstrate compliance with this standard are provided in 40 CFR 63 Subpart AA, National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants. Each evaporative cooling tower (direct-contact), evaporator, hot well, acid sump, and cooling tank used in manufacturing SPA at J.R. Simplot's Don Siding Plant is subject to Subpart AA's standards for existing sources. The Don Siding Plant's SPA processing equipment meets the definition of an existing source specified in 40 CFR 63.609(b). The requirements for existing sources have been incorporated in this permit.

6.13.3 Fugitive Fluoride Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 15.1.2)

6.13.3.1 Applicable Requirement

Fugitive fluoride emissions, as elemental fluorine and all fluoride compounds (including the HAP hydrogen fluoride), are limited by the Tier II Permit No. 077-00006 issued 12/3/99 to 0.37 lbs/hr, and 1.62 T/yr. Per Simplot's public comments to the draft permit package submitted on September 30, 2002, these fugitive sources have been ventilated to the recently installed scrubber and no longer exist. Staff recommends Simplot to modify their Tier II operating permit to reflect the actual process.

6.13.3.2 Compliance Demonstration

Compliance will be assured by using the method specified in SIP inventory, which can be found in Simplot's June 29, 2000 Tier I/II application, Appendix D. Sources of fugitive fluoride emissions in the SPA Plant were the pressure leaf separators, evaporators, hot wells, acid sumps, cooling tanks, cooling towers, fittings, pumps, and vacuum pump seals.

6.13.4 NO_x Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 15.2)

6.13.4.1 Applicable Requirement

The Tier II Permit No. 077-00006, issued December 3, 1999, limits emissions of NO_x from the SPA oxidation reaction process to 0.10 lbs/hr, and 0.40 T/yr.

6.13.4.2 Compliance Demonstration

Compliance will be assured by implementing a pollutant-specific promulgated U.S. EPA Method, or DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in the "Extended Absorption Scrubber" PTC No. 077-00006, April 17, 1990 analysis.

6.13.5 CO Emissions Limits [Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 15.3)

6.13.5.1 Applicable Requirement

The Tier II Permit No. 077-00006, issued December 3, 1999, limits emissions of CO from the SPA oxidation reaction process to 4.2 lbs/hr, and 18.3 T/yr.

6.13.5.2 Compliance Demonstration

Compliance will be assured either by implementing a pollutant-specific method promulgated by the EPA, or by using a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in the "Extended Absorption Scrubber" PTC, April 17, 1990 analysis.

3.6 Visible Emissions [Tier II Permit No. 077-00006, 12/3/99]

The emissions points at the Superphosphoric Acid Plant are subject to the 20% opacity limit per IDAPA 58.01.01.625. Permit Conditions 2.7 and 2.8 in the facility-wide section adequately address this requirement.

4 SULFURIC ACID PLANT 300

4.1 Emissions Unit Description

The Sulfuric Acid Plant processes begin when elemental sulfur is indirectly heated to liquefy the sulfur that is dumped into underground pits. The liquid sulfur is burned in a furnace to produce SO_2. The SO_2 is oxidized to SO_3 in a converter. The SO_3 gas stream passes through an absorber unit where it is absorbed in less concentrated sulfuric acid (approximately 93%) to allow absorption of the SO_3 to form more concentrated sulfuric acid. The process up to this point, called the "single-contact process", is the process used in Sulfuric Acid Plant 300. The exhaust from the absorbing tower is treated with a DynaWave Reverse Jet Scrubber followed by a packed-bed ammonia scrubber. The June 2000 Tier I/II operating permit application and the subsequent November 2000 PTC application for the 300 Sulfuric Acid Plant Restoration Project provided additional information regarding this process. This emissions unit is subject to 40 CFR 60 Subpart H, Standards of Performance for Sulfuric Acid Plant.

14.2 SO_2 Emissions Limits [40 CFR 60 Subpart H or PTC No. 077-00006, 6/15/01] (Permit Condition 16.1)

14.2.1 Applicable Requirement

Sulfur dioxide emissions limits are taken from the existing PTC No. 077-00006, dated June 15, 2001. The limit of 4 lbs/T of 100% sulfuric acid produced was originally taken from 40 CFR 60 Subpart H, which was included in the aforementioned PTC.

14.2.2 Compliance Demonstration

Demonstration of compliance with SO_2 emissions limits were established in the PTC No. 077-00006, dated June 15, 2001. Detailed discussion can be found in the technical memorandum of the aforementioned PTC and its application. The following summarizes the methods to demonstrate compliance:

- Complying with the throughput limit.
- Complying with scrubber operational requirements.
- Establishing a CEMS for SO_2.
- Performing annual compliance tests.
- Establishing parameters for monitoring throughput and scrubber operations.
- Developing a performance test report.
- Developing an excess emissions report.
- Complying with NSPS notification requirements.

.14.3 Acid Mist Emissions Limits [40 CFR 60 Subpart H or PTC No. 077-00006, 6/15/01] (Permit Condition 16.2)

.14.3.1 Applicable Requirement

Sulfuric acid mist emissions limits are taken from existing the PTC No. 077-00006, dated June 15, 2001. The 0.15 lbs/ton of 100% sulfuric acid limit was originally taken from 40 CFR 60 Subpart H, which was included in the PTC.

6.14.3.2 Compliance Demonstration

Demonstration compliance of the acid mist emissions limits was established in the PTC No. 077-00006, dated June 15, 2001. Detailed discussion can be found in the technical memorandum of aforementioned PTC and its application. The following summarizes the methods to demonstrate compliance:

- Complying with visible emissions limits.
- Complying with throughput limits.
- Complying with scrubber operational requirements.
- Performing annual compliance tests.
- Establishing parameters for monitoring throughput and scrubber operations.
- Developing a performance test report.
- Developing an excess emissions report.
- Complying with NSPS notification requirements.

6.14.4 NO_x Emissions Limit [PTC No. 077-00006, 6/15/01] (Permit Condition 16.4)

6.14.4.1 Applicable Requirement

The NO_x emissions limit is taken from the existing PTC No. 077-00006, dated June 15, 2001.

6.14.4.2 Compliance Demonstration

Demonstration compliance of NO_x emissions limit was established in the PTC No. 077-00006, dated June 15, 2001. Detailed discussion can be found in the technical memorandum of aforementioned PTC and its application. The following summarizes the methods to demonstrate compliance:

- Complying with throughput limits.
- Complying with scrubber operational requirements.
- Performing annual compliance tests.
- Establishing parameters for monitoring throughput and scrubber operations.
- Developing a performance test report.
- Developing an excess emissions report.

6.14.5 NH_3 Emissions Limit [PTC No. 077-00006, 6/15/01] (Permit Condition 16.5)

6.14.5.1 Applicable Requirement

The ammonia emissions limit is taken from existing PTC No. 077-00006, dated June 15, 2001.

6.14.5.2 Compliance Demonstration

Demonstration compliance of NH_3 emissions limit was established in the PTC No. 077-00006, dated June 15, 2001. Detailed discussion can be found in the technical memorandum of the aforementioned PTC and its application. The following summarizes the methods to demonstrate compliance:

- Complying with throughput limits.
- Complying with scrubber operational requirements.
- Performing annual compliance tests.
- Establishing parameters for monitoring throughput and scrubber operations.
- Developing a performance test report.
- Developing an excess emissions report.

.14.6 Visible Emissions Limits [40 CFR 60.83 or PTC No. 077-00006 6/15/01] (Permit Conditions 16.6 and 16.7)

.14.6.1 Applicable Requirement

Two visible emissions limits are taken from the existing PTC No. 077-00006, dated June 15, 2001.

The 10% visible emissions limit was originally taken from 40 CFR 60 Subpart H. It was included in the Tier II Permit No. 077-00006 issued December 3, 1999. The opacity standard set forth here shall apply at all times except during periods of startup, shutdown, and malfunction, per 40 CFR 60.11(c).

In addition, the permittee shall comply with Permit Condition 2.7 for visible emissions limit.

.14.6.2 Compliance Demonstration

Demonstration of compliance with the opacity limit was established in the PTC No. 077-00006, dated June 15, 2001. It includes performance source testing and monthly monitoring. See Permit Conditions 16.12, 16.13, and 16.14.

.14.7 PM Process Weight Rate [IDAPA 58.01.01.701, 4/5/00] (Permit Condition 16.3.2)

.14.7.1 Applicable Requirement

This emissions unit is subject to IDAPA 58.01.01.701 process weight rate since it was modified after October 1, 1979. Process weight rate is an applicable requirement in accordance with IDAPA 58.01.01.008.03.

.14.7.2 Compliance Demonstration

This emissions unit is not a significant source of PM. Demonstrating compliance for acid mist emissions limits (Permit Condition 16.2) shall be considered demonstration of compliance with the process weight rate. No additional monitoring is required for this applicable requirement.

.14.8 PM_{10} Emissions Limits [PTC No. 077-00006, 6/15/01] (Permit Condition 16.3.1)

A source test to determine the emissions rate for PM_{10} was required in the existing PTC No. 077-00006, dated June 15, 2001. It is included in the Tier I operating permit as Permit Condition 16.3.1.

.14.9 SO_2 Concentrations [40 CFR 52.675(b)(7) and Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 16.15)

Monitoring ground level ambient SO_2 concentrations is required in 40 CFR 52.675(b)(7), which is an applicable requirement in accordance with IDAPA 58.01.01.008.03.a. It was also addressed in the existing Permit No. 077-00006, dated December 3, 1999. Permit Condition 16.15 includes this monitoring requirement. The 400 Sulfuric Acid Plant is also affected by this requirement. This monitoring requirement may change soon when the Department submits the SO_2 SIP and the SO_2 SIP is approved.

.15 SULFURIC ACID PLANT NO. 400

.15.1 Emissions Unit Description

The Sulfuric Acid Plant processes begin when elemental sulfur is indirectly heated to liquefy the sulfur that is dumped into underground pits. The liquid sulfur is burned in a furnace to produce SO_2. The SO_2 is oxidized to SO_3 in a converter. The SO_3 gas stream passes through an absorber unit where it is absorbed in less concentrated sulfuric acid (approximately 93%) to allow absorption of the SO_3 to form more

concentrated sulfuric acid. The process up to this point is called the "single-contact process". Sulfuric Acid Plant 400 uses a "double-contact process" that passes the SO_3 gas stream through a second converter to oxidize additional SO_2 and then to the final absorber. Product sulfuric acid from the processes is transferred by pipe to the product storage tanks. The June 2000 Tier I/II operating permit application provided additional information regarding this process. This source was installed or modified after August 17, 1971; therefore, it is subject to 40 CFR 60 Subpart H, Standards of Performance for Sulfuric Acid Plants.

6.15.2 SO_2 Emissions Limits [40 CFR 60 Subpart H or Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 17.1)

6.15.2.1 Applicable Requirement

Sulfur dioxide emissions limits are taken from the Tier II Permit No. 077-00006 issued December 3, 1999. The limit of 4 lbs/T of 100% sulfuric acid produced was originally taken from 40 CFR 60 Subpart H, which was included in the aforementioned operating permit.

6.15.2.2 Compliance Demonstration

Demonstration compliance of SO_2 emissions limits was established in 40 CFR 60 Subpart H, and the Tier II Permit No. 077-00006 issued 12/3/99. Detailed discussion can be found in the technical memorandum of the aforementioned operating permit and its application. The following summarizes the methods to demonstrate compliance:

- Calculating the annual emissions limits as specified in the Tier II Permit No. 077-00006 issued 12/3/99.
- Complying with the production rate limit as required in the Tier II Permit, No. 077-00006 issued 12/3/99.
- Complying with the operational requirements as specified in 40 CFR 60.11(c).
- Establishing a CEMS for SO_2 as required in 40 CFR 60 Subpart H.
- Conducting an annual performance test as required in the Tier II Permit No. 077-00006 issued 12/3/99, and 40 CFR 60 Subpart H.
- Complying with the reporting requirements as specified in the Tier II Permit No. 077-00006 issued 12/3/99, 40 CFR 60 Subpart A and H, and the consent order issued by DEQ on August 9, 2001.

6.15.3 Acid Mist Emissions Limits [40 CFR 60 Subpart H or Permit No. 077-00006, 12/3/99] (Permit Condition 17.2)

6.15.3.1 Applicable Requirement

Sulfuric acid mist emissions limits are taken from the Tier II Permit No. 077-00006 issued December 3, 1999. The 0.15 lb/ton of 100% sulfuric acid limit was originally taken from 40 CFR 60 Subpart H, which was included in the aforementioned operating permit.

6.15.3.2 Compliance Demonstration

Demonstration of compliance with sulfuric acid emissions limits was established in 40 CFR 60 Subpart H, and Tier II Permit No. 077-00006 issued December 3, 1999. Detailed discussion can be found in the technical memorandum of the aforementioned operating permit and its application. The following summarizes the methods to demonstrate compliance:

- Calculating the annual emissions limits as specified in the Tier II Permit No. 077-00006 issued December 3, 1999.
- Complying with the visible emissions limit as set in 40 CFR 60.83(a)(2).
- Complying with the production rate limit as required in the Tier II Permit, No. 077-00006 issued December 3, 1999.
- Meeting the operational requirement as required in 40 CFR 60.11(c).

- Conducting an annual performance test as required in the Tier II Permit No. 077-00006 issued December 3, 1999.
- Complying with the reporting requirements as required in the Tier II Permit No. 077-00006 issued December 3, 1999, 40 CFR 60 Subpart A and H, and the consent order issued by DEQ on August 9, 2001.

15.4 Visible Emissions Limits [40 CFR 60 Subpart H or Tier Permit No. 077-00006, 12/3/99] (Permit Condition 17.3)

15.4.1 Applicable Requirement

The 10% visible emissions limit was originally taken from 40 CFR 60 Subpart H. It was included in the Tier II Permit No. 077-00006 issued December 3, 1999. The opacity standard set forth here shall apply at all times except during periods of startup, shutdown, and malfunction, per 40 CFR 60.11(c).

15.4.2 Compliance Demonstration

Demonstration of compliance with the opacity limit was established in the Tier II Permit No. 077-00006 issued December 3, 1999, and 40 CFR 60 Subpart H.

15.5 PM/Process Weight Rate [IDAPA 58.01.01.701, 4/5/00] (Permit Condition 17.4)

15.5.1 Applicable Requirement

This emissions unit is subject to IDAPA 58.01.01.701 process weight rate because it was modified after October 1, 1979. The process weight rate is an applicable requirement in accordance with IDAPA 58.01.01.008.03.

15.5.2 Compliance Demonstration

This emissions unit is not a significant source of PM. Demonstrating compliance with the acid mist emissions limit (Permit Condition 17.2) shall be considered demonstration of compliance for the process weight rate. No additional monitoring is required for this applicable requirement.

15.6 SO_2 Concentrations [40 CFR 52.675(b)(7) or Tier II Permit No. 077-00006, 12/3/99] (Permit Condition 17.8)

Monitoring ground level ambient SO_2 concentrations is required in 40 CFR 52.675(b)(7), which is an applicable requirement in accordance with IDAPA 58.01.01.008.03.a. It was also addressed in the Tier II Permit No. 077-00006 issued December 3, 1999. Permit Condition 17.8 includes this monitoring requirement.

15.7 Standard Operating Procedure [Consent Order, 8/9/01] (Permit Condition 17.17)

The consent order issued by DEQ on August 9, 2001 required the permittee to develop a standard operating procedure. Under IDAPA 58.01.01.322.01, Permit Condition 17.17 requires the permittee to keep the standard operating procedure onsite and available to the Department on request.

15.16 Purified Phosphoric Acid Plant

The facility uses a pressure filtration process, coupled with an existing evaporator to produce a 75% to 80% H_3PO_4 product for the technical and near-technical grade market. This manufacturing capability was granted a Category I PTC exemption on February 17, 1995.

7. INSIGNIFICANT ACTIVITIES

A list of insignificant activities can be found in Table 8 of Simplot's June Tier I/II application. These activities are only subject to the general requirements found in the facility-wide and general provision sections. No specific monitoring is required.

8. ALTERNATIVE OPERATING SCENARIOS

Simplot requested two operating scenarios in the June 2000, Tier I/II application. They were to replace the existing CE and Foster-Wheeler boilers, and 300 Sulfuric Acid Plant. Since these replacements have been completed, they are no longer operating scenarios.

9. TRADING SCENARIOS

No trading scenarios are requested by the permittee.

10. COMPLIANCE SCHEDULE AND COMPLIANCE CERTIFICATION

Pursuant to the information submitted by the J.R. Simplot Co., the following issues were specifically identified as noncompliance issues:

- Ambient air quality standards for fluorides
- Ambient monitoring of SO_2

The Department has determined that the most appropriate course of action to bring the facility into compliance with the requirements is to issue a single facility-wide Tier II operating permit that:

(a) Specifically establishes the operating terms and conditions required.

(b) Collectively addresses the operating terms and conditions required to demonstrate that emissions from all sources at the facility will not contribute to a violation of an applicable standard.

The Department is, therefore, requiring a Tier II operating permit (Tier II) (hereafter referred to as the facility-wide permit). The Tier II permit for the J.R. Simplot Co. is required in accordance with IDAPA 58.01.01.401.03 based on the determination that specific emission standards, or requirements on operation or maintenance are necessary to ensure compliance with any applicable emission standard or rule. The facility-wide permit will contain the terms and conditions necessary for the facility to comply with the applicable requirements of IDAPA 58.01.01.400 through 410.

The facility-wide permit will also include all of the terms and conditions for new or modified sources as necessary. For those sources within the facility that have existing PTCs, the terms and conditions will be incorporated into the new permit. For any sources at the facility for which a PTC was required but not obtained, the permit will establish new emission limits, controls, and other requirements in accordance with the applicable portions of IDAPA 58.01.01.200 through 223. The new facility-wide permit will address all applicable emission standards, required emission control technology, and demonstrate that the facility will not cause or contribute to any ambient air quality standard or applicable prevention of significant deterioration (PSD) increment.

The facility-wide permit is different than, and separate from, the Tier I in that the new permit will establish new applicable emission limits, controls, and other requirements that are as stringent as the requirements contained in or enforceable under the state implementation plan. This permit will create new underlying requirements for sources that are in existence at the time the initial Tier I is issued. A Tier I permit

modification will, therefore, need to be issued concurrently with the issuance of the new facility-wide permit.

The applicable requirements established in the facility-wide permit pursuant to IDAPA 58.01.01.200 through 223 shall be clearly identified as such in the permit and shall remain in full force and effect until such time as they are modified or terminated in accordance with the procedures for issuing a PTC.

The specific compliance schedule elements and milestones to achieve compliance are described below.

Permit Condition 18.2. The permittee will be required to submit a complete permit application with all supporting information and documentation for issuance of a facility-wide permit in accordance with IDAPA 58.01.01.400 through 410 no later than 180 days from the final issuance date of the Tier I.

The permit application shall clearly identify all emissions units at the facility - listing currently permitted emissions units, exempted units for which the facility maintains exemption documentation, units constructed before and not modified since January 24, 1969, and units constructed and/or modified since January 24, 1969 without a permit or construction approval from the Department. Application information shall provide facility information and emissions data for all emissions units in accordance with IDAPA 58.01.01.402 and 403 and shall include a demonstration that the sources at the facility will not cause or significantly contribute to a violation of the NAAQS or of any applicable PSD increment.

The application submittal deadlines have been set to reasonably accommodate updating and organizing the emissions unit descriptions and emissions data, and conducting ambient air quality modeling for all sources. Applications that are deemed or remain incomplete beyond the 180-day milestone shall constitute a violation of this permit condition.

The J.R. Simplot Co. is required to continuously monitor ground-level ambient SO_2 concentrations, wind speed, and wind direction per 40 CFR 52.675. The monitoring network must include at least four ambient SO_2 monitoring stations. Currently, Simplot is only operating two SO_2 monitoring stations. DEQ believes two ambient monitoring stations are adequate. However, to allow Simplot to operate only two monitoring stations, DEQ must develop an SO_2 implementation plan for the Pocatello area that will ensure the ambient air quality standards will not be exceeded. Once the EPA approves the implementation plan, the EPA can remove the requirements in 40 CFR 52.675. As part of the SO_2 implementation plan, DEQ must provide a maintenance plan to the EPA that assures the attainment and maintenance of the NAAQS.

In order for the J.R. Simplot SO_2 SIP to be complete, a current Tier II permit needs to be written and submitted with SO_2 modeling. The modeling has been completed but the updated Tier II has not been written. However, Simplot must submit all data as required to facilitate the processing of the Tier II operating permit.

This data must be submitted with the complete permit application required under Permit Condition 18.2 in order to issue a facility-wide permit. The information is, therefore, due no later than 180 days from the final issuance date of the Tier I. Failure to include complete information for addressing any PTC requirements within the required timeframe shall constitute a violation of this permit condition.

Permit Condition 18.4. If through the development of the facility-wide permit, any other source or sources are identified that should have obtained a PTC or PTC modification and for which the applicant did not include the information under Permit Condition 18.3, a supplemental application that contains all of the information necessary to address the applicable requirements for PTCs in accordance with IDAPA 58.01.01.200 through 223 shall be submitted no later than 30 days after receiving written notification from the Department. Supplemental applications that are deemed or remain incomplete beyond the 30-day milestone shall constitute a violation of this permit condition.

Permit Condition 18.5. If the permittee can clearly demonstrate that the data required for the facility-wide permit cannot be collected and organized within the specified timeframe, the permit application submittal deadlines may be extended at the discretion of the Department for a specific time period not to exceed one year. For the Department to consider a request for an extension without jeopardizing the terms and

conditions of the permit, the request must be submitted by the facility no later than the midpoint of the compliance milestone timeline. The request must be submitted in writing with a clear demonstration why the data cannot reasonably be submitted within the specified timeframe. An example of information that might justify an extension is the absence of ambient monitoring data required to complete a PSD application.

The Department will review the request and the justification and approve or disapprove the extension in writing. The responsibility for meeting the schedule if the Department has not issued a written extension belongs to the permittee.

Permit Condition 18.6. The Department intends to draft and issue a single facility-wide permit to bring the permittee back into compliance. This permit will fully meet all of the applicable requirements in the *Rules* and the federally approved state implementation plan. Because the permit may contain both elements of PTCs and of Tier II permits, it will clearly identify the origin and basis for each term and condition. The terms and conditions established pursuant to the PTC requirements shall be clearly marked and shall not expire with any Tier II operating permit term. The terms and conditions established pursuant to the Tier II requirements shall be clearly marked and shall be implemented in accordance with the Tier II process. The procedures for issuing a PTC in IDAPA 58.01.01.209 shall be followed concurrently with the procedures for issuing a Tier II in IDAPA 58.01.01.404, if required. The permit shall clearly state that any future modification of a term or condition in the permit shall be subject to the appropriate procedural requirements on which the original term or condition was based.

Permit Condition 18.7. Within 30 days after the Department determines the facility-wide permit application complete, the permittee will need to request a significant permit modification to the Tier I in accordance with IDAPA 58.01.01.382.02. A significant Tier I modification will require the payment of fees in accordance with IDAPA 58.01.01.389.06.b.iii. Because the information in a complete application as required under Permit Condition 18.2 and 18.3 should contain all of the technical information necessary to modify the Tier I, the Department may waive portions of the standard application requirements as appropriate provided the permittee certifies the completeness, truth, and accuracy of all documents submitted.

The Tier I modification shall be processed concurrently with the facility-wide permit in accordance with the procedures for issuing a Tier I in IDAPA 58.01.01.360 through 369.

Permit Condition 18.8. The permittee shall be required to submit a progress report at the end of each calendar quarter (January 1, April 1, July 1, and October 1) of each year stating when each of the conditions of each milestone were or will be achieved. A detailed explanation is required when milestones were not or will not be achieved in accordance with the schedule.

Permit Condition 18.9. The incorporation of the compliance schedule into the Tier I operating permit does not sanction noncompliance with the applicable rules.

11. ACID RAIN PERMIT

The J.R. Simplot Don Siding Plant is not subject to the acid rain permitting requirements of 40 CFR 72 through 75. The facility does not have any requirements to obtain pollutant allowance from the EPA, nor does it have a pollutant emissions limit through these regulations. The substance of the regulation that applies to this facility is the requirement to monitor emissions and report the results.

12. AIRS DATABASE

AIRS/AFS PERMIT CLASSIFICATION DATA ENTRY FORM

AIR PROGRAM / POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N – Nonattainment
SO_2	A	A	A			A	U
NO_x	A	A	B			A	U
CO	A	A				A	U
PM_{10}	A	A				A	N
Particulate	A	A				A	
VOC	A	A				A	U
Total HAPs	A					A	
			APPLICABLE SUBPART*				
			Db, Dc, G, H	R*	AA, BB		

AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant that is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
B = Actual and potential emissions below all applicable major source thresholds.
C = Class is unknown.
ND = Major source thresholds are not defined (e.g., radionuclides).

* When Gypsum Stacks/Piles become inactive

13. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees, in accordance with IDAPA 58.01.01.387, apply.

14. RECOMMENDATION

Based on the Tier I application and review of the federal regulations and state rules, staff recommends that DEQ issue final Tier I operating permit No. 077-00006 to the J.R. Simplot Co. for their Don Siding Plant in Pocatello.

SYC\sd G:\Air Quality\Stationary Source\SS Ltd\T1\JRS Poky\Final\T1-9507-114-1 Final TM.doc

cc: Tiffany Floyd, Pocatello Regional Office
Sherry Davis, Air Quality Division

APPENDIX A -

EMISSIONS POINT IDENTIFICATIONS

Table 1
Source Group Identifications

Group ID	Group Description	IDEQ Form	Source Group	Source ID	Source Description	Type	Emission Point
1.0	Sulfuric Acid Plant #300 & #400 Stacks	3	Sulfuric Acid Plant #300	100.0	#300 Sulfuric Acid Plant Main Stack	Pt	#300 Sulfuric Stack
			Sulfuric Acid Plant #400	114.0	#400 Sulfuric Acid Plant Main Stack	Pt	#400 Sulfuric Stack
2.0	Sulfuric Acid Plant #300 & #400 Fugitives	3	Sulfuric Acid Plant #300	103.0	Rail Car Steaming	Fug	Car Lids
			Sulfuric Acid Plant #300	104.0	Rail Car Dumping	Fug	Dump Pit
			Sulfuric Acid Plant #300	105.0	Sulfur Pit Vent	Fug	Sulfur Pit Stack
			Sulfuric Acid Plant #300	112.1	AmmSO$_4$ Scrubber Valves, Flanges & Pumps	Fug	Inside/Outside
			Sulfuric Acid Plant #300	112.2	Flanges, Valves & Lines	Fug	Inside/Outside
			Sulfuric Acid Plant #400	116.0	Rail Car Steaming	Fug	Car Lids
			Sulfuric Acid Plant #400	117.0	Rail Car Dumping	Fug	Dump Pits
			Sulfuric Acid Plant #400	118.0	Sulfur Pit Vent	Fug	Sulfur Pit Stack
			Sulfuric Acid Plant #400	130.0	Flanges, Valves & Lines	Fug	Inside/Outside
			Tanks - Sulfuric Acid Plant	1474.1	#400 Sulfur Storage Tank	Fug	Outside
			Sulfuric Acid Plant #300	1550.0	Day Storage Tank – 93%	Pt	Outside
			Sulfuric Acid Plant #300	1551.0	Day Storage Tank – 98%	Pt	Outside
			Sulfuric Acid Plant #400	1552.0	Day Storage Tank – 93%	Pt	Outside
			Sulfuric Acid Plant #400	1553.0	Day Storage Tank – 98%	Pt	Outside
3.0	Phosphoric Acid Plant Stack	3	Phosphoric Acid Plant	200.0	#2 Hot Pit (Hot Well for #11 EVAP)	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	202.0	Hot Wells	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	203.0	Vacuum Pumps	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	204.0	Filtrate Cans	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	209.0	Belt Filters	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	212.0	Phos-Acid Reactor	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	215.0	Evaporator Seal Tanks	Pt	Belt Filter Scrub Stk
			Phosphoric Acid Plant	226.0	Precondenser Cans	Pt	Belt Filter Scrub Stk
4.0	Phosphoric Acid Plant Fugitives	3	Phosphoric Acid Plant	207.0	Sumps (several)	Fug	Inside/Outside
			Phosphoric Acid Plant	210.0	Belt Filters	Fug	Inside
			Phosphoric Acid Plant	230.0	Phosphoric Acid Plant Fugitives	Fug	Inside
5.0	Phosphoric Acid Tank Farm Scrubber	3	Phosphoric Acid Plant	229.0	Tank Farm Scrubber	Pt	T.F. Scrubber Stack
6.0	Tank Farm Area Fugitives	3	Phosphoric Acid Plant	223.0	West End Sump	Fug	Outside
			Phosphoric Acid Plant	228.0	#53 Tank Sump	Fug	Outside

Table 1
Source Group Identifications

Group ID	Group Description	IDEO Form	Source Group	Source ID	Source Description	Type	Emission Point
15.0	*Granulation #1 Baghouse Stack (cont.)*		Granulation #1	414.1	Product Elevator	Pt	Baghouse Stack
			Granulation #1	414.2	Reject Conveyor to Fines Drag	Pt	Baghouse Stack
16.0	Granulation #1 Process Fugitives	3	Granulation #1	400.1	Dryer	Fug	Inside
			Granulation #1	402.0	Granulator	Fug	Inside
			Granulation #1	403.1	Reactor	Fug	Inside
			Granulation #1	406.1	Cooler	Fug	Inside
			Granulation #1	407.0	Burner Spill Hopper	Fug	Inside
			Granulation #1	408.0	Cage Mills	Fug	Inside
			Granulation #1	409.0	Conveyer to Product Elevator	Fug	Inside
			Granulation #1	410.0	Reject Hopper	Fug	Outside
			Granulation #1	411.0	Spill Chute	Fug	Inside
			Granulation #1	412.0	Elevator to Granulator	Fug	Inside
			Granulation #1	413.0	Elevator to Screens	Fug	Inside
			Granulation #1	414.0	Product Elevator	Fug	Inside
			Granulation #1	416.0	Fines Drag Conveyer	Fug	Inside
			Granulation #1	418.1	Screens	Fug	Inside
			Granulation #1	418.2	Polishing Screen	Fug	Inside
			Granulation #1	418.3	Loader to Reject Hopper	Fug	Outside
			Granulation #1	418.4	Reject Hopper to Conveyor	Fug	Outside
			Granulation #1	418.5	Conveyor to Fines Drag	Fug	Inside/Outside
			Granulation #1	418.6	Valves, Flanges & Pumps	Fug	Inside/Outside
17.0	Granulation #1 Storage and Loadout Fugitives	7	Granulation #1 Storage	419.0	Product Dump From Overhead	Fug	Inside
			Granulation #1 Storage	420.0	Front End Loader Operation	Fug	Inside
			Granulation #1 Storage	421.0	Underground Conveyer	Fug	Loading Vents
			Granulation #1 Storage	422.0	Elevator	Fug	Inside
			Granulation #1 Storage	423.0	Crossover Belt	Fug	Outside/Covered
			Granulation #1 Storage	423.1	Screens for Crossover Belt	Fug	Inside
			Granulation #1 Storage	424.0	Bulking Loadout	Fug	Outside/Covered
18.0	Granulation #2 Tailgas Scrubber Stack	3	Granulation #2	450.0	Reactor	Pt	T.G. Scrubber
			Granulation #2	451.0	Granulator	Pt	T.G. Scrubber
			Granulation #2	453.0	Dryer	Pt	T.G. Scrubber

T.G. = Tail Gas

Table 1
Source Group Identifications

Group ID	Group Description	IDEQ Permit	Source Group	Source ID	Source Description	Type	Emission Point
21.0	*Granulation #2 Storage and Loadout Fugitives (cont.)*		Granulation #2 Storage	475.0	Crossover Belt	Fug	Outside/Covered
			Granulation #2 Storage	476.0	Bulking Loadout	Fug	Outside/Covered
			Granulation #2 Storage	477.0	Screens	Fug	Inside
22.0	Granulation #3 Stack	3	Granulation #3	700.0	Mixer	Pt	Gran. #3 Stack
			Granulation #3	701.0	Blender/Granulator	Pt	Gran. #3 Stack
			Granulation #3	703.0	Blunger	Pt	Gran. #3 Stack
			Granulation #3	706.1	Limestone Bin Augers	Pt	Gran. #3 Stack
			Granulation #3	707.1	Hardy Scale	Pt	Gran. #3 Stack
			Granulation #3	708.2	Screens	Pt	Gran. #3 Stack
			Granulation #3	708.3	Rotex Screen	Pt	Gran. #3 Stack
			Granulation #3	709.1	Fines Loadout	Pt	Gran. #3 Stack
			Granulation #3	710.1	Production Elevator	Pt	Gran. #3 Stack
			Granulation #3	712.1	Reject Elevator	Pt	Gran. #3 Stack
			Granulation #3	713.0	Cage Mill	Pt	Gran. #3 Stack
			Granulation #3	720.0	Dryer → where is the source code ?	Pt	Gran. #3 Stack
23.0	Granulation #3 Limestone Silos	3	Granulation #3	705.0	Limestone Bins	Pt	Limestone Baghouse(s)
24.0	Granulation #3 Process Fugitives	3	Granulation #3	702.0	Blender/Granulator	Fug	Inside
			Granulation #3	704.0	Blunger	Fug	Inside
			Granulation #3	706.0	Limestone Bin Augers	Fug	Inside
			Granulation #3	707.0	Hardy Scale	Fug	Inside
			Granulation #3	708.0	Screens	Fug	Inside
			Granulation #3	708.1	Rotex Screen	Fug	Inside
			Granulation #3	709.0	Fines Loadout	Fug	Inside
			Granulation #3	710.0	Primary Production Elevator	Fug	Inside
			Granulation #3	712.0	Reject Elevator	Fug	Inside
			Granulation #3	714.0	Cage Mill	Fug	Inside
			Granulation #3	715.0	Main Stack Sump	Fug	Outside
			Granulation #3	716.0	Cyclonic Scrubber Sump	Fug	Outside
			Granulation #3	717.0	Feed Acid Sump	Fug	Inside
			Granulation #3	718.0	Blender Sump	Fug	Inside
			Granulation #3	719.0	Dryer Crossover Belt	Fug	Inside
			Granulation #3	721.0	Dryer	Fug	Inside

Table 1
Source Group Identifications

Group ID	Group Description	IDEQ Form	Source Group	Source ID	Source Description	Type	Emission Point
29.0	Ammonium Sulfate Storage and Loadout Fugitives	7	Ammo-Sulfate Strg. Dome	550.0	Storage Dome Drop	Fug	Inside/Roof Vent
			Ammo-Sulfate Strg. Dome	551.0	Front End Loader Operations	Fug	Inside/Roof Vent
			Ammo-Sulfate Strg. Dome	551.1	Screen	Fug	Inside
			Ammo-Sulfate Strg. Dome	552.0	Product Elevator	Fug	Inside/Roof Vent
			Ammo-Sulfate Strg. Dome	553.0	Crossover Belt	Fug	Outside/Covered
			Ammo-Sulfate Strg. Dome	554.0	Product Loadout	Fug	Outside/Covered
30.0	Nitric Acid Plant Stack	3	Solutions	816.0	Combustor Exhaust	Pt	Nitric Acid Stack
31.0	Solutions Plant (Ammonium Nitrate Reactor/Neutralizer Vent; Urea Plant)	3	Solutions	808.0	Ammonium Nitrate Neutralizer Stack	Pt	Neutralizer Stack
			Solutions	813.0	CO_2 Filter	Pt	CO_2 Stack
32.0	Solutions Fugitives	3	Solutions	819.0	Off Gas Blowdown Vent (Manual)	Fug	Outside Vent
			Solutions	828.0	Valves, Flanges & Pumps	Fug	Inside/Outside
33.0	Water Reclaim System Cooling Towers	3	Water Reclaim	908.0	North Cooling Towers	Pt	Fan Exhuast
			Water Reclaim	909.0	West Cooling Towers	Pt	Fan Exhuast
			Water Reclaim	910.0	East Cooling Towers	Pt	Fan Exhuast
34.0	Water Reclaim System Fugitives	3	Phosphoric Acid Plant	218.0	#1 Hot Pit	Fug	Outside
			Phosphoric Acid Plant	220.0	Hot Pit / Cooling Tower Overflow	Fug	Pool Surface
			Phosphoric Acid Plant	221.0	Gypsum Thickners	Fug	Outside
			Phosphoric Acid Plant	222.0	Gypsum Launder	Fug	Outside
			Tanks - Reclaim	1421.0	Gyp Thickner Overflow (E & W)	Fug	Outside
			Impoundments	1700.0	Hot Pit Overflow (East) Pond	Fug	Pond Surface
35.0	Package Boilers (Combustion Engineering and Foster Wheeler)	2	Boilers	1000.0	Combustion Engineering Boiler	Pt	C.E. Main Stack,
			Boilers	1001.0	Foster Wheeler Boiler	Pt	F.W. Main Stack
36.0	Babcock & Wilcox Boiler	2	Boilers	1002.0	Babcock & Wilcox Boiler (B.W.)	Pt	B.W. Main Stack
37.0	Miscellaneous Generators	2	Boilers	1003.0	Standby Diesel Generator (450 KW)	Pt	S. Wall Blr. Bldg.
			Slurry Receiving	1216.1	Standby Diesel Generator (Capacity)?	Pt	Roof Vent/Stack
40.0	Super Phosphoric Acid Plant Scrubber Stack	3	Super Phosphoric Acid	1102.0	Product Tank	Pt	Scrubber Stack
			Super Phosphoric Acid	1108.1	Evaporators	Pt	Scrubber Stack
			Super Phosphoric Acid	1108.2	Sump #6	Pt	Scrubber Stack
		3	Super Phosphoric Acid	1109.0	Oxidizer	Pt	Scrubber Stack
			Super Phosphoric Acid	1112.0	Evaporator Feed Tank	Pt	Scrubber Stack

Table 1
Source Group Identifications

Source ID	Source Group Description	AIRS Point	Source Group	Source ID	Source Description	Type	Emission Point
41.0	*Roads (cont.)*		Paved Roads	1641.3	Segment 2500	Line	Fug Dust
			Paved Roads	1642.0	Segment 2600	Line	Fug Dust
			Paved Roads	1644.0	Segment 2700	Line	Fug Dust
			Paved Roads	1646.0	Segment 2800	Line	Fug Dust
			Paved Roads	1648.0	Segment 2900	Line	Fug Dust
			Paved Roads	1650.0	Segment 3000	Line	Fug Dust
			Paved Roads	1652.0	Segment 3100	Line	Fug Dust
			Paved Roads	1654.0	Segment 3200	Line	Fug Dust
			Paved Roads	1656.0	Segment 3300	Line	Fug Dust
			Paved Roads	1658.0	Segment 3400	Line	Fug Dust
			Unpaved Roads	1662.0	Segment UP100	Line	Fug Dust
			Unpaved Roads	1664.0	Segment UP200	Line	Fug Dust
			Unpaved Roads	1666.0	Segment UP300	Line	Fug Dust
			Unpaved Roads	1668.0	Segment UP400	Line	Fug Dust
42.0	Gypsum Stack/Pond and Transport	7	Tanks - Gyp Stack	1508.0	Gypsum Decant Tank	Fug	Outside
			Impoundments	1701.0	Gypsum Stack Pond	Fug	Pond Surface
			Gypsum Stack	1712.0	Dike Building Activities	Fug	Outside
			Gypsum Stack	1713.0	Wind-Blown Dust	Fug	Outside
43.0	Construction/Demolition Debris Landfill Operation	7	Landfill	1711.1	Earth Moving Activities - Operation	Fug	Outside
45.0	Pilot Plant	3	Pilot Plant	1716.0	Granulator, Dryer, and Cyclone	Fug	Side Vent
46.0	Calciner	3	Calciner	1800.0	#1 Calciner	Pt	Calciner Stack

APPENDIX B -

STARTUP/SHUTDOWN/EXCESS EMISSIONS PROCEDURES

J.R. SIMPLOT COMPANY P.O. BOX 912 POCATELLO, IDAHO 83204
208/232-6620

AgriBusiness

COPY

CERTIFIED MAIL Z 416 623 627

November 21, 2001

Tiffany Floyd
Air Quality Manager
State of Idaho
Department of Air Quality
224 South Arthur
Pocatello, Idaho 83204-3202

RE: J. R. Simplot Co. – Don Plant – Startup/Shutdown/Excess Emissions Procedures

Dear Tiffany:

As you requested, enclosed are the Startup/Shutdown/Excess Emissions procedures for the J.R. Simplot Company, Don Plant that were initially submitted on March 27, 2001. Please note that the Startup/Shutdown/Excess Emissions procedure for #400 Sulfuric Acid Plant has been revised and submitted to your office since the original submittal under the Consent Order dated August 13, 2001. We believe Simplot's obligations under this Order have been met.

The enclosed procedures, prepared based upon an industry template, have been submitted to meet the requirements set forth at IDAPA 58.01.01.133.02. If there are questions regarding the sufficiency of these procedures, we would like to meet with you to discuss them as soon as convenient.

If you have questions regarding the information provided, please contact me at 208-234-5370 or Bob Willey at 208-234-5352.

Sincerely,

Leon Pruett
Environmental Manager
J.R. Simplot Co. – Don Plant

Cc: Lisa Kronberg DEQ
Sheila Bush Simplot
Del Butler Simplot

J. R. Simplot Co.
Don Plant
Excess Emissions Procedures
Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns
(IDAPA 58.01.01.133)

Name of Equipment: Mist Eliminator	ID Number: FP012
(IDAPA 58.01.01.133.02 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 58.01.133.02 (a))	
IDAPA Rule	Point Source: #400 Sulfuric Acid Plant Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 58.01.01.133.02 (b), 134.04 (b))	SO2 – Permit Limit – 999 lbs/3-hr period and 1458 tons/yr Sulfuric Acid mist – Permit Limit – 12.5 lbs/hr or 54.80 T/yr. Visible Emissions shall not exceed 10% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 58.01.01.133.02 (c), 134.04 (c))	Excess emissions are not anticipated. However, if excess emissions do occur, the required follow-up report will contain the estimated amount.
The expected duration of each excess emissions event. (IDAPA 58.01.01.133.02 (d), 134.04 (d))	Less than 1 hr, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 58.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. Historical CEMS data does not indicate excess emissions during startup/shutdown events. However, if converter pass temperatures are too low, excess emissions may result. If emission violations are likely, the plant will be shut down and reheated on gas. Plant design and technology in conjunction with a Mist Eliminator reduce emissions. Standard Operating Procedures are in place to ensure proper startup and minimize possibility of excess emissions. Shutdown – No expected excess emissions. Historical CEMS data does not indicate excess emissions during startup/shutdown events. Plant design and technology in conjunction with a Mist Eliminator reduce emissions. Standard Operating Procedures are in place to ensure proper shutdown and minimize possibility of excess emissions. Scheduled Maintenance – No expected excess emissions. Standard Operating Procedures are in place to minimize possibility of excess emissions. Upset/Breakdown –No expected excess emissions. However, excess emissions are more likely to occur during upset/breakdown events than at any other time. Standard Operating Procedures are in place to minimize possibility of excess emissions.

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Davy-McKee Scrubber	ID Number: SR030
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Wet Process Phosphoric Acid Plant #400 Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 3.38 lb/hr or 14.80 T/yr. PM – 10 – Permit Limit – 2.77 lb/hr or 12.13 T/yr. Fluoride – Permit Limit – 1.3 lb/hr or 4.71 T/yr. Radio nuclide – Permit Limit - .020 Ci/yr Total Reduced Sulfur – Permit Limit – 8.61 lb/hr or 37.7 T/yr. Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The scrubber operates continuously. The scrubber is in operation before material handling/processing equipment is started, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The scrubber operates continuously. The scrubber is in operation before material handling/processing equipment is started, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The process equipment that directs emissions to the scrubber operates continuously. If this equipment is shutdown during scrubber maintenance, the process will be adversely affected. Upset/Breakdown – No expected excess emissions. The process equipment that directs emissions to the scrubber operates continuously. If this equipment is shutdown during scrubber maintenance, the process will be adversely affected

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Ammsox Scrubber	ID Number: SR008
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: #300 Sulfuric Acid Plant Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	SO2 – Permit Limit – 750 lbs/3-hr period and 1095 tons/yr Sulfuric Mist – Permit Limit – 9.4 lbs/hr or 41.1 T/yr. Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The scrubber operates continuously. The scrubber is in operation before material handling/processing equipment is started, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The scrubber operates continuously. The scrubber is in operation before material handling/processing equipment is started, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The process equipment that directs emissions to the scrubber operates continuously. If this equipment is shutdown during scrubber maintenance, the process will be adversely affected. Upset/Breakdown – No expected excess emissions. The process equipment that directs emissions to the scrubber operates continuously. If this equipment is shutdown during scrubber maintenance, the process will be adversely affected.

J. R. Simplot Co.
Don Plant
Excess Emissions Procedures
Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns
(IDAPA 16.01.01.133.04)

Name of Equipment: Belt Filter Scrubber	ID Number: SR004
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Wet Process Phosphoric Acid Plant #400 Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 3.38 lb/hr or 14.80 T/yr. PM – 10 – Permit Limit – 2.77 lb/hr or 12.13 T/yr. Fluoride – Permit Limit – 1.3 lb/hr or 4.71 T/yr. Total Reduced Sulfur – Permit Limit – 8.61 lb/hr or 37.7 T/yr. Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The scrubber operates continuously. The scrubber is in operation before material handling/processing equipment is started, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The scrubber operates continuously. The scrubber is in operation before material handling/processing equipment is started, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The process equipment that directs emissions to the scrubber operates continuously. If this equipment is shutdown during scrubber maintenance, the process will be adversely affected. Upset/Breakdown – No expected excess emissions. The process equipment that directs emissions to the scrubber operates continuously. If this equipment is shutdown during scrubber maintenance, the process will be adversely affected.

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Granulation II Baghouse	ID Number: BH006
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation II Baghouse Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	*Limits are additive between the Granulation II Baghouse Stack and the Granulation II Scrubber Stack* Particulate Matter – Permit Limit – 22.02 lbs/hr and 96.47 tons/yr PM – 10 – Permit Limit – 18.06 lbs/hr or 79.12 T/yr. Fluoride – Permit Limit – 6.8 lbs/hr or 29.78 T/yr. Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Granulation II baghouse operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Granulation II baghouse operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Granulation II baghouse is designed to operate continuously. Upset/Breakdown –No expected excess emissions. The equipment that delivers emissions to the Granulation II baghouse is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance – 1/yr. – w/24 inspections/yr. Upset/breakdown – 2/yr.

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Tail Gas Scrubber	ID Number: SR020
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation II Baghouse Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	*Limits are additive between the Granulation II Baghouse Stack and the Granulation II Scrubber Stack* Particulate Matter – Permit Limit – 22.02 lbs/hr and 96.47 tons/yr PM – 10 – Permit Limit – 18.06 lbs/hr or 79.12 T/yr. Fluoride – Permit Limit – 6.8 lbs/hr or 29.78 T/yr. Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Tail Gas Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Tail Gas Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Tail Gas Scrubber is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Tail Gas Scrubber is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance – 1/yr. – w/24 inspections/yr. Upset/breakdown – 2/yr

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Cooler Venturi Scrubber	ID Number: SR036
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Ammoniam Sulfate Plant – Cooler Venturi Scrubber Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 2.44 lbs/hr and 10.68 tons/yr PM – 10 – Permit Limit – 2.0 lbs/hr or 8.76 T/yr. NOx – Permit Limit – .25 lbs/hr or 1.1 T/yr. SO2 – Permit Limit - .0007 lb/hr or .003 T/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Cooler Venturi Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Cooler Venturi Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Cooler Venturi Scrubber is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Cooler Venturi Scrubber is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance –1/yr Upset/breakdown –1/yr

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Scrubber	ID Number: SR009
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Ammoniam Sulfate Plant –Scrubber Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 2.44 lbs/hr and 10.68 tons/yr PM – 10 – Permit Limit – 2.0 lbs/hr or 8.76 T/yr. NOx – Permit Limit – .25 lbs/hr or 1.1 T/yr. SO2 – Permit Limit - .0007 lb/hr or .003 T/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Scrubber is designed to operate continuously. Upset/Breakdown – No expected excess emissions. The equipment that delivers emissions to the Scrubber is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance –1/yr Upset/breakdown –2/yr

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Granulation I Baghouse	ID Number: BH004
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation I Baghouse Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 23.8 lbs/hr and 104.26 tons/yr PM – 10 – Permit Limit – 19.52 lbs/hr or 85.48 T/yr. NOx – Permit Limit – 1.44 lbs/hr or 6.3 T/yr. SO2 – Permit Limit - .0016 lb/hr or .007 T/yr CO – Permit Limit - .37 lb/hr or 1.6 T/yr Fluoride – Permit Limit – 7.8 lb/hr or 34.16 T/yr Radio Nuclide – Permit Limit - .011 Ci/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Granulation I Baghouse operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Granulation I Baghouse operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Granulation I Baghouse is designed to operate continuously. Upset/Breakdown –No expected excess emissions. The equipment that delivers emissions to the Granulation I Baghouse is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance – 1/yr. – w/ 24 inspections/yr. Upset/breakdown – 3/yr

J. R. Simplot Co.
Don Plant
Excess Emissions Procedures
Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns
(IDAPA 16.01.01.133.04)

Name of Equipment: Venturi Scrubber No. 2	ID Number: SR011
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation I Venturi Scrubber No. 2 Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 23.8 lbs/hr and 104.26 tons/yr PM – 10 – Permit Limit – 19.52 lbs/hr or 85.48 T/yr. NOx – Permit Limit – 1.44 lbs/hr or 6.3 T/yr. SO2 – Permit Limit - .0016 lb/hr or .007 T/yr CO – Permit Limit - .37 lb/hr or 1.6 T/yr Fluoride – Permit Limit – 7.8 lb/hr or 34.16 T/yr Radio Nuclide – Permit Limit - .011 Ci/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Granulation I Venturi Scrubber No. 2 operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Granulation I Venturi Scrubber No. 2 operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance -- No expected excess emissions. The equipment that delivers emissions to the Granulation I Venturi Scrubber No. 2 is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Granulation I Venturi Scrubber No. 2 is designed to operate continuously.

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Venturi Scrubber No. 1	ID Number: SR010
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation I Venturi Scrubber No. 1 Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 23.8 lbs/hr and 104.26 tons/yr PM – 10 – Permit Limit – 19.52 lbs/hr or 85.48 T/yr. NOx – Permit Limit – 1.44 lbs/hr or 6.3 T/yr. SO2 – Permit Limit - .0016 lb/hr or .007 T/yr CO – Permit Limit - .37 lb/hr or 1.6 T/yr Fluoride – Permit Limit – 7.8 lb/hr or 34.16 T/yr Radio Nuclide – Permit Limit - .011 Ci/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Granulation I Venturi Scrubber No. 1 operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Granulation I Venturi Scrubber No. 1 operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Granulation I Venturi Scrubber No. 1 is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Granulation I Venturi Scrubber No. 1 is designed to operate continuously.

J. R. Simplot Co.
Don Plant
Excess Emissions Procedures
Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns
(IDAPA 16.01.01.133.04)

Name of Equipment: Granulation III Baghouse	ID Number: BH001
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation III Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 10.46 lbs/hr and 45.83 tons/yr PM – 10 – Permit Limit – 8.58 lbs/hr or 37.57 T/yr. NOx – Permit Limit – 2.88 lbs/hr or 12.6 T/yr. SO2 – Permit Limit - .0016 lb/hr or .007 T/yr CO – Permit Limit - .73 lb/hr or 3.2 T/yr Fluoride – Permit Limit – 1.7 lb/hr or 7.45 T/yr Radio Nuclide – Permit Limit - .017 Ci/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Granulation III Baghouse operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Granulation III Baghouse operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Granulation III Baghouse is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Granulation III Baghouse is designed to operate continuously.

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Entoleter Scrubber	ID Number: SR007
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Granulation III Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 10.46 lbs/hr and 45.83 tons/yr PM – 10 – Permit Limit – 8.58 lbs/hr or 37.57 T/yr. NOx – Permit Limit – 2.88 lbs/hr or 12.6 T/yr. SO2 – Permit Limit - .0016 lb/hr or .007 T/yr CO – Permit Limit - .73 lb/hr or 3.2 T/yr Fluoride – Permit Limit – 1.7 lb/hr or 7.45 T/yr Radio Nuclide – Permit Limit - .017 Ci/yr Visible Emissions shall not exceed 20% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Entoleter Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Entoleter Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Entoleter Scrubber is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Entoleter Scrubber is designed to operate continuously.

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Mist Eliminator (IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns. (IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Reclaim Cooling Towers - #400 Phosphoric Acid Plant
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	Particulate Matter – Permit Limit – 17.65 lbs/hr and 77.31 tons/yr PM – 10 – Permit Limit – 3.53 lbs/hr or 15.48 T/yr. Fluoride – Permit Limit – 4.9 lbs/hr or 21.7 T/yr.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Mist Eliminator operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Mist Eliminator operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Mist Eliminator is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Mist Eliminator is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance – 1/yr Upset/breakdown – 8/yr

J. R. Simplot Co. Don Plant Excess Emissions Procedures Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns (IDAPA 16.01.01.133.04)	
Name of Equipment: Extended Absorption Scrubber	ID Number: SR025
(IDAPA 16.01.01.133.02 (a), 133.04 (a))	
Type of Event Anticipated: Startup, Shutdown, Scheduled Maintenance, and Upset/Breakdowns.	
(IDAPA 16.01.133.02 (a), 133.04 (a))	
IDAPA Rule	Point Source: Super phosphoric Acid Plant Stack
Identification of the specific regulated air pollutants likely to be emitted in excess of applicable emission standards during startup, shutdown, scheduled maintenance period, or upset/breakdown. (IDAPA 16.01.01.133.02 (b), 134.04 (b))	CO – Permit Limit – 4.2 lbs/hr and 18.3 tons/yr NOx – Permit Limit – .1 lb/hr or .4 T/yr. Visible Emissions shall not exceed 10% opacity.
The estimated amount of excess emissions expected to be released during each event. (IDAPA 16.01.01.133.02 (c), 134.04 (c))	No expected excess emissions. Required follow-up report will contain necessary information.
The expected duration of each excess emissions event. (IDAPA 16.01.01.133.02 (d), 134.04 (d))	Less than 12 hrs, depending on type of event.
An explanation of why the excess emissions are reasonably unavoidable for each type of event; startup, shutdown, scheduled maintenance, and upset/breakdown. (IDAPA 16.01.01.133.02 (e), 134.04 (e))	Startup – No expected excess emissions. The Extended Absorption Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Shutdown – No expected excess emissions. The Extended Absorption Scrubber operates continuously, except during scheduled maintenance or upset/breakdowns. Scheduled Maintenance – No expected excess emissions. The equipment that delivers emissions to the Extended Absorption Scrubber is designed to operate continuously. Upset/Breakdown – No expected excess emissions. No expected excess emissions. The equipment that delivers emissions to the Extended Absorption Scrubber is designed to operate continuously.
Specification of the frequency at which each of the types of excess emissions events are expected to occur – startup, shutdown, and schedule maintenance, or upset/breakdown – based on historic occurrences. (IDAPA 16.01.01.133.02 (f), 134.04 (f))	Startup – No anticipated frequency Shutdown – No anticipated frequency Scheduled Maintenance –1/yr Upset/breakdown – 2/yr

APPENDIX C -
SUMMARY OF PERMITTED ANNUAL EMISSONS LIMTS

Emissions Units	PM	PM10	SO2	NOx	CO	VOC	Fluorides	H2SO4	TRS	NH3
No. 100 and No. 200 Ammonia Plants	10.7	7.9	0.3	297.0	117.0	125.0				
Ammonium Sulfate Plant	5.8	8.8	0.0	1.1	0.3					
HPB&W Boiler Stack	2.8	5.8	0.5	30.7	61.3	4.2				
Babcock & Wilcox Boiler	104.3	1.4	0.2	12.6	51.1	0.8				
Granulation No. 1 Process (stacks)	30.8	85.5	0.0	6.3	1.6		34.2			
Granulation No. 1 Process (fugitive)	96.5	11.1					0.3			
Granulation No. 2 Process (stacks)	30.8	79.1	0.0	7.4	1.8		29.8 (or 0.06lb/ton of P_2O_5, whichever is more stringent)			
Granulation No. 1 Process (fugitive)	30.7	4.6					0.4			
Granulation No. 3 Process (stacks)	3.0	26.2	0.1	14.9	12.7	0.9	5.6 (or 0.06lb/ton of P_2O_5, whichever is more stringent)			
Granulation No. 3 Process (fugitive)		0.5					80.0			
Gypsum Stacks/Piles		18.8								
Nitric Acid and Nitrogen Solution Plants				37.5 (or 3lb/ton of 100% HNO_3 produced, whichever is more stringent						
Phosphoric Acid Manufacturing Plants (stacks)	14.8	12.1					4.7 (or 0.02lb/ton of P_2O_5, whichever is more stringent)		38	
Phosphoric Acid Manufacturing Plants (fugitive)		0.0								
Plant Road	13.7	8.5								
Reclaim Cooling Tower Cell	618.5	123.8					173.6			
Superphosphoric Acid Plant (stack)				0.4	18.3		1.7 (0.010 lb/ton P_2O_5)			
Superphosphoric Acid Plant (fugitive)							1.6			
Sulfuric Acid Plant No. 300	Insignificant	Insignificant	750.0	64.0				13		11
Sulfuric Acid Plant No. 400	Insignificant	Insignificant	1458.0					55		

APPENDIX D -

EMISSIONS ESTIMATION METHODS FOR AMMONIA PLANTS

Source ID: 305
Source: 1st Shift Converter Inlet Vent
Group ID: 9 IDEQ Form #: 3

Emission Type Pt.
Emission Point: Vent Collector Stack
Process Group Ammonia Plant 100

UTM Easting: 375,462
UTM Northing: 4,751,476
Base Elevation: 4,448

Flow (scfm):
Diameter (ft): 1
Temperature (F):
Release Ht (ft): 50

Pollutant		Hours	Control Eff.	Utilization Factor (UF)	Adjustment Factor	Lb/Hr	Ton/Yr	Calculated?
CO	Actual:	12		12.00 hrs/yr	1	1.65E+03	9.90E+00	Y
	Maximum:	24		24.00 hrs/yr	1	2.15E+03	1.98E+01	Y

VAR1: 1650 lb/hr VAR2: VAR3: VAR4:
VAR5: VAR6: VAR7:

Remarks: Used during startup/shutdown only

Source ID: 307	Emission Type Pt.	UTM Easting: 375,462	Flow (acfm):		
Source: 2nd Shift Converter Bypass Vent	Emission Point: Vent Collector Stack	UTM Northing: 4,751,476	Diameter (ft): 1		
Group ID: 9 IDEQ Form #: 3	Process Group Ammonia Plant 100	Base Elevation: 4,446	Temperature (F):		
			Release Ht (ft): 50		

Pollutant		Hours	Control Eff.	Utilization Factor (UF)	Adjustment Factor	Lb/Hr	Ton/Yr	Calculated?
CO	Actual:	12		12.00 hrs/yr	1	3.65E+02	2.19E+00	Y
	Maximum:	24		24.00 hrs/yr	1	4.75E+02	4.38E+00	Y

VAR1:	365	lb/hr	VAR2:	VAR3:	VAR4:		
VAR5:			VAR6:	VAR7:			

Remarks: Used during startup/shutdown only

Source ID: 314	Emission Type: Pt.	UTM Easting: 375,462	Flow (scfm):		
Source: Reformed Gas Vent	Emission Point: Vent Collector Stack	UTM Northing: 4,751,478	Diameter (ft): 1		
Group ID: 9 IDEQ Form #: 3	Process Group: Ammonia Plant 100	Base Elevation: 4,448	Temperature (F):		
			Release Ht (ft): 50		

Pollutant		Hours	Control Eff.	Utilization Factor (UF)	Adjustment Factor	Lb/Hr	Ton/Yr	Calculated?
CO	Actual:	12		12.00 hrs/yr	1	6.69E+01	4.01E-01	Y
	Maximum:	24		24.00 hrs/yr	1	6.70E+01	8.03E-01	Y

VAR1:	66.9	lb/hr	VAR2:	VAR3:	VAR4:		
VAR5:			VAR6:	VAR7:			

Remarks:

Source ID: 334		Emission Type: Pt.		UTM Easting: 375,462	Flow (scfm):
Source: 1st Shift Converter Inlet Vent		Emission Point: Vent Collector Stack		UTM Northing: 4,751,476	Diameter (ft): 1
Group ID: 9	IDEQ Form #: 3	Process Group: Ammonia Plant 200		Base Elevation: 4,448	Temperature (F):
					Release Ht (ft): 50

Pollutant		Hours	Control Eff.	Utilization Factor (UF)	Adjustment Factor	Lb/Hr	Ton/Yr	Calculated?
CO	Actual:	12		12.00 hrs/yr	1	1.65E+03	9.90E+00	Y
	Maximum:	24		24.00 hrs/yr	1	2.15E+03	1.98E+01	Y

VAR1: 1650 lb/hr VAR2: VAR3: VAR4:

VAR5: VAR6: VAR7:

Remarks: Used during startup/shutdown only

Source ID: 336

Source: 2nd Shift Converter Bypass Vent

Group ID: 9 IDEQ Form #: 3

Emission Type Pt.

Emission Point: Vent Collector Stack

Process Group Ammonia Plant 200

UTM Easting: 375,462

UTM Northing: 4,751,476

Base Elevation: 4,448

Flow (acfm):

Diameter (ft): 1

Temperature (F):

Release Ht (ft): 50

Pollutant		Hours	Control Eff.	Utilization Factor (UF)	Adjustment Factor	Lb/Hr	Ton/Yr	Calculated?
CO	Actual:	12		12.00 hrs/yr	1	3.65E+02	2.19E+00	Y
	Maximum:	24		24.00 hrs/yr	1	4.75E+02	4.38E+00	Y

VAR1: 365 lb/hr VAR2: VAR3: VAR4:

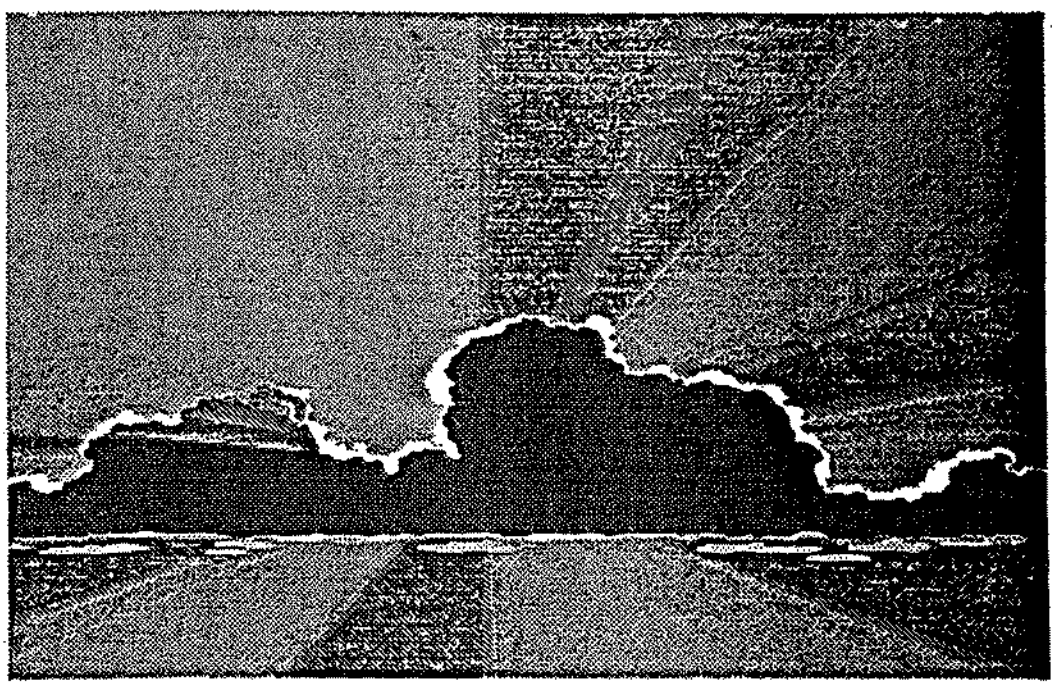
VAR5: VAR6: VAR7:

Remarks: Used during startup/shutdown only

APPENDIX E -

FUGITIVE EMISSIONS OF PM_{10} FROM PHOSPHORIC ACID PLANT DETERMINED FROM *PM_{10} AIR QUALITY IMPROVEMENT PLAN FOR POWER AND BANNOCK COUNTIES* DATED MAY 1993

Power-Bannock Counties Particulate Matter (PM-10) Air Quality Improvement Plan



Idaho Department of Health and Welfare

Division of Environmental Quality

Eastern Idaho Regional Office

United States Environmental Protection Agency

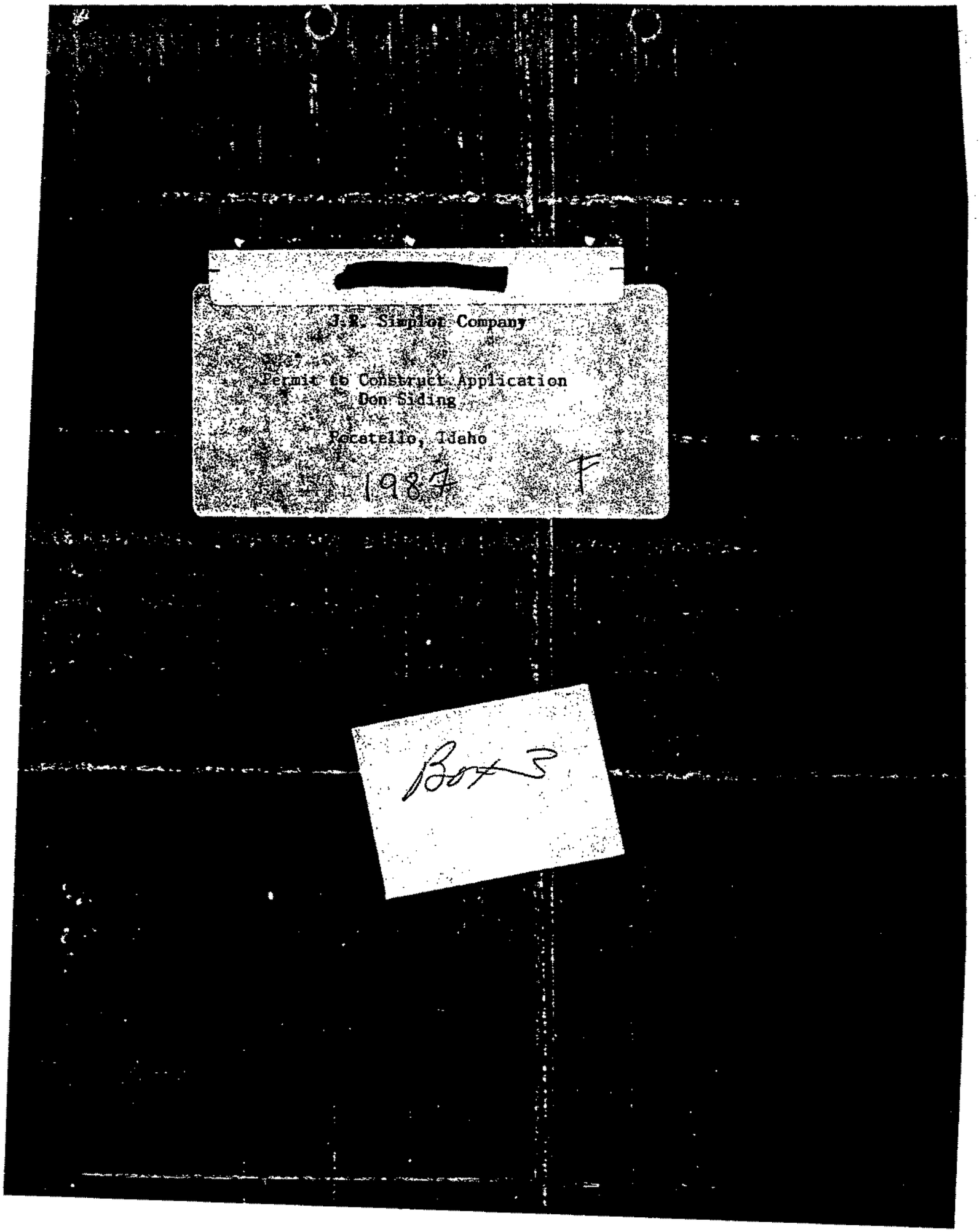
Region X

Seattle, Washington

SOURCES	Material Type	Emission Factor lb/Ton	Source	Capture Eff.	Fugitive Emissions Maximum Daily PM10 (lbs/day)	Fugitive Emissions Average Annual PM10 (Tons/yr)	Control Eff.	(Foot-notes)	Controlled Maximum Daily PM10 (lbs/day)	Controlled Average Annual PM10 (Tons/yr)
ate DUST SILO #13 BH	Ore									
or=> Phos. Dust Silo #13		1.00	SCC 3-05-019-03 for PM10	99.50%	24.00	0.75	99.90%	(1)	4.78	0.15
ugitives					24.00	0.75				
ate DUST SILO #14 BH	Ore									
or=> Phos. Dust Silo #14		1.00	SCC 3-05-019-03 for PM10	99.50%	24.00	0.75	99.90%	(1)	4.80	0.15
ugitives					24.00	0.75				
hosphoric Acid Plant D-N Scrubber		0.16 (lb/hr)	SET 9/90/PM10 Frac.Frm TB 8.18-2	99.50%	0.16	0.03	90.00%	(2)	3.15	0.52
Phos.Acid Reactor	phos ore,H2SO4									
flash cooler	H3PO4									
Fugitives					0.16	0.03				
Phosphoric Acid Plant POLYCON Scru		0.00 (lb/hr)	SET11/90/PM10 Frac.Frm TB 8.18-2	99.50%	0.00	0.00	90.00%	(2)	0.00	0.00
flash clr hot wells	H3PO4									
Evap. hot wells	H3PO4									
belt filters	H3PO4									
blt flt. fltrte tanks	H3PO4									
Fugitives					0.00	0.00				
eactor/granulator Venturi Scrubber		1.46 (lb/hr)	SET 5/90/PM10 Frac.Frm TB 8.18-2	99.50%	1.44	0.18	90.00%	(2)	28.73	3.59
eactor/granulator	NH3,phos acid,gyp									
=> Triple Screen										
=> Fine Conveyor										
e => Cage Mill										
Mill => Fines Conveyor										
m => Vib. Pan										
Pan Fines => Fines Conveyor										
Pan => Cooler										
Conv. => Granulator										
er => Storage conv.										
Fugitives					1.44	0.18				
Ammonium Phosphate BH	MAP	0.28 (lb/hr)	SET 5/90/PM10 Frac.Frm TB 8.18-2	99.50%	27.69	3.46	99.90%	(2)	5.51	0.69
screens										
. Conv. => Storage										
Fugitives					27.69	3.46				
Running Total					5609.77	384.23			2166.74	149.98

tnotes:
Control efficiency provided by J.R. Simplot
Source Emission Test (SET) performed by J.R. Simplot.
Daily emissions calculated by: [SET lbs./hr.(TSP) * hrs/dy/2000] * PM10 Fraction

APPENDIX F -
FUGITIVE EMISSIONS OF FLUORIDE FROM SUPERPHOSPHORIC ACID PLANT DETERMINED IN SIMPLOT'S PLANT EXPANSION PERMIT APPLICATION ANALYSIS


[redacted]
J.R. Simplot Company
Permit to Construct Application
Don Siding
Pocatello, Idaho
1987 F
Box 3

IX.

SUPERPHOSPHORIC ACID PLANTS

IX. SUPERPHOSPHORIC ACID PLANTS.

A. Stacks.

- No particulate matter (TSP) is emitted; the process is conducted entirely in the liquid phase.

B. Fugitives.

- All emissions from this operation are fugitive fluoride. There is no air pollution control equipment as such.

1. Existing.

- Emission factor

  . This is a vacuum evaporation process plant. Emissions are estimated to be 0.005 pound/ton P2O5.

  . Reference: J. R. Simplot "Background Information Document.

- Throughput:

  . 1984 = 96,000 tons as P2O5

a. TSP.

- No particulate matter is emitted; the process is conducted entirely in the liquid phase.

b. Fluoride.

$$E = \left(\frac{0.005 \text{ pound}}{\text{ton P2O5}}\right)\left(\frac{96{,}000 \text{ tons P2O5}}{\text{year}}\right)\left(\frac{1 \text{ ton}}{2000 \text{ pounds}}\right)$$

$$E = \frac{0.242 \text{ ton}}{\text{year}}$$

2. Proposed.

- Production capacity will be increased with the addition of an additional evaporator train.

- Emission factor

  . Fluoride emissions are limited by NSPS to 0.01 pound F/ton P2O5

- Throughput = 324,000 tons P2O5/year

a. TSP.

- No particulate matter is emitted; the process is conducted entirely in the liquid phase.

b. Fluoride.

$$E = \left(\frac{0.01 \text{ pound F}}{\text{ton P2O5}}\right)\left(\frac{324{,}000 \text{ tons P2O5}}{\text{year}}\right)\left(\frac{1 \text{ ton}}{2000 \text{ pounds}}\right)$$

$$E = \frac{1.62 \text{ tons}}{\text{year}}$$

APPENDIX G -
NSPS

wnloaded from Enflex on 5/15/02

ibpart Db -- Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

60.40b Applicability and delegation of authority.

) The affected facility to which this subpart applies is each steam generating unit that commences construction, odification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the eam generating unit of greater than 29 MW (100 million Btu/hour).
) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing onstruction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the llowing standards:
) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 million tu/hour), inclusive, are subject to the particulate matter and nitrogen oxides standards under this subpart.
2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 million Btu/hour) and neeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam enerators; § 60.40) are subject to the particulate matter and nitrogen oxides standards under this subpart and to he sulfur dioxide standards under subpart D (§ 60.43).
3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 million Btu/hour), nclusive, are subject to the nitrogen oxides standards under this subpart.
4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 million Btu/hour) and meeting he applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; § 60.40) are also subject to the nitrogen oxides standards under this subpart and the particulate matter and sulfur dioxide standards under subpart D (§ 60.42 and § 60.43).
(c) Affected facilities which also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; § 60.104) are subject to the particulate matter and nitrogen oxides standards under this subpart and the sulfur dioxide standards under subpart J (§ 60.104).
(d) Affected facilities which also meet the applicability requirements under subpart E (Standards of performance for incinerators; § 60.50) are subject to the nitrogen oxides and particulate matter standards under this subpart.
(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; § 60.40a) are not subject to this subpart.
(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing TRS as defined under § 60.281 is not considered a modification under § 60.14 and the steam generating unit is not subject to this subpart.
(g) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the following authorities shall be retained by the Administrator and not transferred to a State.
(1) Section 60.44b(f).
(2) Section 60.44b(g).
(3) Section 60.49b(a)(4).
(h) Affected facilities which meet the applicability requirements under subpart Eb (Standards of performance for municipal waste combustors; § 60.50b) are not subject to this subpart.
(i) Unless and until subpart GG of this part is revised to extend the applicability of subpart GG of this part to steam generator units subject to this subpart, this subpart will continue to apply to combined cycle gas turbines that are capable of combusting more than 29 MW (100 million Btu/hour) heat input of fossil fuel in the steam generator. Only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG of this part.)
(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, § 60.40).

[51 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 63 FR 49442, Sept. 16, 1998; 65 FR 61744, Oct. 17, 2000]

60.41b Definitions.

s used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A f this part.

nnual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels sted in § 60.42b(a), § 60.43b(a), or § 60.44b(a), as applicable, during a calendar year and the potential heat input o the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady tate design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat nput shall be determined based on the combined heat input from all operations of the affected facility in a calendar ear.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum efineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

Chemical manufacturing plants means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR – see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any byproduct of coal mining or coal cleaning operations with an ash content greater than 50 percent, by weight, and a heating value less than 13,900 kJ/kg (6,000 Btu/lb) on a dry basis.

Combined cycle system means a system in which a separate source, such as a gas turbine, internal combustion engine, kiln, etc., provides exhaust gas to a heat recovery steam generating unit.

Conventional technology means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, Standard Specifications for Fuel Oils (incorporated by reference – see § 60.17).

Dry flue gas desulfurization technology means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

Emerging technology means any sulfur dioxide control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under § 60.49b(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Full capacity means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas [illegible] internal combustion engines, kilns, etc.

at release rate means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the nace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace ll where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the st row of convection pass tubes.
eat transfer medium means any material that is used to transfer heat from one point to another point.
gh heat release rate means a heat release rate greater than 730,000 J/sec-m 3 (70,000 Btu/hour-ft 3).
gnite means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in STM D388-77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR – see § 60.17).
w heat release rate means a heat release rate of 730,000 J/sec-m 3 (70,000 Btu/hour-ft 3) or less.
ass-feed stoker steam generating unit means a steam generating unit where solid fuel is introduced directly into retort or is fed directly onto a grate where it is combusted.
laximum heat input capacity means the ability of a steam generating unit to combust a stated maximum amount fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating nit.
lunicipal-type solid waste means refuse, more than 50 percent of which is waste consisting of a mixture of paper, ood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible aterials such as glass and rock.
latural gas means
1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath ne earth's surface, of which the principal constituent is methane; or
2) liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-82, 86, 87, 91, or 97, "Standard Specification for Liquid Petroleum Gases" (IBR – see § 60.17).
Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.
Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.
Petroleum refinery means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.
Potential sulfur dioxide emission rate means the theoretical sulfur dioxide emissions (ng/J, lb/million Btu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.
Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.
Pulp and paper mills means industrial plants which are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.
Pulverized coal-fired steam generating unit means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units.
Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (IBR – see § 60.17).
Spreader stoker steam generating unit means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.
Steam generating unit means a device that combusts any fuel or byproduct/waste to produce steam or to heat water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.
Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.
Very low sulfur oil means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input.
Wet flue gas desulfurization technology means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition

plies to devices where the aqueous liquid material product of this contact is subsequently converted to other rms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, nestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust ases from a steam generating unit to control emissions of particulate matter or sulfur dioxide.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not mited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from ood or other forest residues.

51 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51818, Dec. 18, 1989; 65 FR 1744, Oct. 17, 2000; 66 FR 49830, Oct. 1, 2001]

§ 60.42b Standard for sulfur dioxide.

a) Except as provided in paragraphs (b), (c), (d), or (j) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_a H_a + K_b H_b) / (H_a + H_b)$$

where:

E_s is the sulfur dioxide emission limit, in ng/J or lb/million Btu heat input,
K_a is 520 ng/J (or 1.2 lb/million Btu),
K_b is 340 ng/J (or 0.80 lb/million Btu),
H_a is the heat input from the combustion of coal, in J (million Btu),
H_b is the heat input from the combustion of oil, in J (million Btu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 20 percent of the potential sulfur dioxide emission rate (80 percent reduction) and that contain sulfur dioxide in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

(c) On and after the date on which the performance test is completed or is required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of sulfur dioxide emissions, shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 50 percent of the potential sulfur dioxide emission rate (50 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_c H_c + K_d H_d) / H_c + H_d)$$

where:

E_s is the sulfur dioxide emission limit, expressed in ng/J (lb/million Btu) heat input,
K_c is 260 ng/J (0.60 lb/million Btu),
K_d is 170 ng/J (0.40 lb/million Btu),

H_c is the heat input from the combustion of coal, J (million Btu),
H_d is the heat input from the combustion of oil, J (million Btu).

ıly the heat input supplied to the affected facility from the combustion of coal and oil is counted under this ıction. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, unicipal-type solid waste, or other fuels, or from the heat input to the affected facility from exhaust gases from ıother source, such as gas turbines, internal combustion engines, kilns, etc.
l) On and after the date on which the performance test is completed or required to be completed under § 60.8 of is part, whichever comes first, no owner or operator of an affected facility listed in paragraphs (d) (1), (2), or (3) ! this section shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 20 ng/J (1.2 lb/million Btu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/million Btu) heat ıput if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not pplicable to affected facilities under paragraphs (d)(1), (2), or (3).
l) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are ubject to a Federally enforceable permit limiting the operation of the affected facility to an annual capacity factor ɔr coal and oil of 30 percent (0.30) or less;
2) Affected facilities located in a noncontinental area; or
3) Affected facilities combusting coal or oil, alone or in combination with any other fuel, in a duct burner as part of combined cycle system where 30 percent (0.30) or less of the heat input to the steam generating unit is from ombustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat input to the steam enerating unit is from the exhaust gases entering the duct burner.
e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, ınd/or percent reduction requirements under this section are determined on a 30-day rolling average basis.
f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits ınder this section is determined on a 24-hour average basis for affected facilities that (1) have a Federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur ɔil, and (3) do not combust any other fuel.
g) Except as provided in paragraph (i) of this section, the sulfur dioxide emission limits and percent reduction equirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
h) Reductions in the potential sulfur dioxide emission rate through fuel pretreatment are not credited toward the ɔercent reduction requirement under paragraph (c) of this section unless:
(1) Fuel pretreatment results in a 50 percent or greater reduction in potential sulfur dioxide emissions and
(2) Emissions from the pretreated fuel (without combustion or post combustion sulfur dioxide control) are equal to or less than the emission limits specified in paragraph (c) of this section.
(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the sulfur dioxide control system is not being operated because of malfunction or maintenance of the sulfur dioxide control system.
(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in § 60.45b(c) or § 60.45b(d), and following the monitoring procedures as described in § 60.47b(a) or § 60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in § 60.49b(r).

[51 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51818, Dec. 18, 1989; 65 FR 61744, Oct. 17, 2000]

§ 60.43b Standard for particulate matter.

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:
(1) 22 ng/J (0.051 lb/million Btu) heat input,
(i) If the affected facility combusts only coal, or
(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
(2) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a federally enforceable

equirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) or fuels other than coal.
3) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts coal or coal and other fuels and
(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,
(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,
(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and
(iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.
(b) On and after the date on which the performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 43 ng/J (0.10 lb/million Btu) heat input.
(c) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits:
(1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.
(2) 86 ng/J (0.20 lb/million Btu) heat input if
(i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood,
(ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and
(iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less.
(d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:
(1) 43 ng/J (0.10 lb/million Btu) heat input,
(i) If the affected facility combusts only municipal-type solid waste, or
(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
(2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and
(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,
(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,
(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and
(iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986.
(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.
(f) On and after the date on which the initial performance test is completed or is required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
(g) The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.

)1 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51818, Dec. 18, 1989; 65 FR 1744, Oct. 17, 2000]

60.44b Standard for nitrogen oxides.

a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial erformance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, o owner or operator of an affected facility that is subject to the provisions of this section and that combusts only oal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that ontain nitrogen oxides (expressed as NO2) in excess of the following emission limits:

Fuel/Steam Generating Unit Type	Nitrogen Oxide Emission Limits ng/J (lb/million (Btu) (expressed as NO(2) Heat Input
(1) Natural gas and distillate oil, except (4):	
(i) Low heat release rate	43(0.10)
(ii) High heat release rate	86(0.20)
(2) Residual oil:	
(i) Low heat release rate	130(0.30)
(ii) High heat release rate	170(0.40)
(3) Coal:	
(i) Mass-feed stoker	210(0.50)
(ii) Spreader stoker and fluidized bed combustion	260(0.60)
(iii) Pulverized coal	300(0.70)
(iv) Lignite except (v)	260(0.60)
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340(0.80)
(vi) Coal-derived synthetic fuels	210(0.50)
(4) Duct burner used in a combined cycle system:	
(i) Natural gas and distillate oil	86(0.20)
(ii) Residual oil	170(0.40)

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of a limit determined by the use of the following formula:

$$E_n = [(EL_{go} H_{go}) + (EL_{ro} H_{ro}) + (EL_c H_c)] / (H_{go} + H_{ro} + H_c)$$

where:

E_n is the nitrogen oxides emission limit (expressed as NO_2), ng/J (lb/million Btu)

EL_{go} is the appropriate emission limit from paragraph (a)(1) for combustion of at natural gas or distillate oil, ng/J (lb/million Btu)

H_{go} is the heat input from combustion of natural gas or distillate oil,

EL_{ro} is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil,

H_{ro} is heat input from combustion of residual oil,

EL_c is the appropriate emission limit from paragraph (a)(3) for combustion of coal, and

H_c is the heat input from combustion of coal.

:) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance :st is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or perator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, nd wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any ases that contain nitrogen oxides in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, inless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected acility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 130 ng/J (0.30 lb/million Btu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_n = [(EL_{go} H_{go}) + (EL_{ro} H_{ro}) + (EL_c H_c) / (H_{go} + H_{ro} + H_c)$$

where:

E_n is the nitrogen oxides emission limit (expressed as NO_2), ng/J (lb/million Btu)

EL_{go} is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/million Btu)

H_{go} is the heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, ng/J (lb/million Btu).

EL_{ro} is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/million Btu)

H_{ro} is the heat input from combustion of residual oil and/or liquid byproduct/waste.

EL_c is the appropriate emission limit from paragraph (a)(3) for combustion of coal, and

H_c is the heat input from combustion of coal.

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a nitrogen oxides emission limit which shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as nitrogen oxides emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific nitrogen oxides emission limit under this section shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, by conducting a 30-day performance test as provided in § 60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the

me technological system of emission reduction applied when demonstrating compliance under paragraph (1)(i) of this section.

) The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for sidual oil in paragraph (a)(2) of this section, as appropriate, shall be applicable to the affected facility until and ıless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-ɔecific nitrogen oxides emission limit will be established at the nitrogen oxides emission level achievable when e affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator ɛtermines to be consistent with minimizing nitrogen oxides emissions.

ı) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or) CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the ffected facility for a waiver from compliance with the nitrogen oxides emission limit which applies specifically to ıat affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, n nitrogen oxides emissions from the affected facility, waste destruction efficiencies, waste composition (including itrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the dministrator to determine if the affected facility is able to comply with the nitrogen oxides emission limits required y this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is ombusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an pplicable federally enforceable requirement preclude compliance with the nitrogen oxides emission limits of this ection. The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for esidual oil in paragraph (a)(2) of this section, as appropriate, are applicable to the affected facility until and unless he petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of naterials containing polychlorinated biphenyls (PCB's).)

h) For purposes of paragraph (i) of this section, the nitrogen oxide standards under this section apply at all times ncluding periods of startup, shutdown, or malfunction.

i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is letermined on a 30-day rolling average basis.

j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial ɔerformance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

(3) Are subject to a Federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil and a nitrogen content of 0.30 weight percent or less.

(k) Affected facilities that meet the criteria described in paragraphs (j) (1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 million Btu/hour) or less, are not subject to the nitrogen oxides emission limits under this section.

(l) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility which commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO2) in excess of the following limits:

(1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = [(0.10 * H_{go}) + (0.20 * H_r)] / (H_{go} + H_r)$$

Where:

E_n is the NO_x emission limit, (lb/million Btu),
H_{go} is the heat input from combustion of natural gas or distillate oil, and
H_r is the heat input from combustion of any other fuel.

51 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51820, Dec. 18, 1989; 63 FR 9442, Sept. 16, 1998; 66 FR 42608, Aug. 14, 2001]

§ 60.45b Compliance and performance test methods and procedures for sulfur dioxide.

(a) The sulfur dioxide emission standards under § 60.42b apply at all times.
(b) In conducting the performance tests required under § 60.8, the owner or operator shall use the methods and procedures in appendix A of this part or the methods and procedures as specified in this section, except as provided in § 60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.
(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential sulfur dioxide emission rate (% Ps) and the sulfur dioxide emission rate (Es) pursuant to § 60.42b following the procedures listed below, except as provided under paragraph (d) of this section.
(1) The initial performance test shall be conducted over the first 30 consecutive operating days of the steam generating unit. Compliance with the sulfur dioxide standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.
(2) If only coal or only oil is combusted, the following procedures are used:
(i) The procedures in Method 19 are used to determine the hourly sulfur dioxide emission rate (Eho) and the 30-day average emission rate (Eao). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system of § 60.47b (a) or (b).
(ii) The percent of potential sulfur dioxide emission rate (% Ps) emitted to the atmosphere is computed using the following formula:

$$\%P_s = 100\ (1 - \%R_g / 100)\ (1 - \%R_f / 100)$$

where:

$\%R_g$ is the sulfur dioxide removal efficiency of the control device as determined by Method 19, in percent.
$\%R_f$ is the sulfur dioxide removal efficiency of fuel pretreatment as determined by Method 19, in percent.

(3) If coal or oil is combusted with other fuels, the same procedures required in paragraph (c)(2) of this section are used, except as provided in the following:
(i) An adjusted hourly sulfur dioxide emission rate (Ehoo) is used in Equation 19-19 of Method 19 to compute an adjusted 30-day average emission rate (Eaoo). The Eho is computed using the following formula:

$$E_{ho}^{\circ} = [E_{ho} - E_w(1 - X_k)] / X_k$$

where:

E_{ho}° is the adjusted hourly sulfur dioxide emission rate, ng/J (lb/million Btu).
E_{ho} is the hourly sulfur dioxide emission rate, ng/J (lb/million Btu).
E_w is the sulfur dioxide concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted.
X_k is the fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19.

(ii) To compute the percent of potential sulfur dioxide emission rate ($\%P_s$), an adjusted $\%R_g$ ($\%R_g^{\circ}$) is computed from the adjusted E(ao)[o] from paragraph (b)(3)(i) of this section and an adjusted average sulfur dioxide inlet rate (E(ai)°) using the following formula:

$,° = 100\ (1.0 - E_{ao}° / E_{ai}°)$

compute E(ai)°, an adjusted hourly sulfur dioxide inlet rate (Ehi°) is used. The E(hi)° is computed using the lowing formula:

$hi)° = [E(hi) - E(w)(1 - X(k))] / X(k)$

where:

E(hi)° is the adjusted hourly sulfur dioxide inlet rate, ng/J (lb/million Btu).
E(hi) is the hourly sulfur dioxide inlet rate, ng/J (lb/million btu).

) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to easure parameters Ew or Xk if the owner or operator elects to assume that Xk=1.0. Owners or operators of fected facilities who assume Xk=1.0 shall
) Determine % Ps following the procedures in paragraph (c)(2) of this section, and
) Sulfur dioxide emissions (Es) are considered to be in compliance with sulfur dioxide emission limits under § 0.42b.
) The owner or operator of an affected facility that qualifies under the provisions of § 60.42b(d) does not have to easure parameters Ew or Xk under paragraph (b)(3) of this section if the owner or operator of the affected facility lects to measure sulfur dioxide emission rates of the coal or oil following the fuel sampling and analysis rocedures under Method 19.
) Except as provided in paragraph (j), the owner or operator of an affected facility that combusts only very low ulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a Federally nforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent 0.10) or less shall:
1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;
2) Determine compliance with the standards after the initial performance test based on the arithmetic average of he hourly emissions data during each steam generating unit operating day if a continuous emission measurement ystem (CEMS) is used, or based on a daily average if Method 6B or fuel sampling and analysis procedures under Method 19 are used.
e) The owner or operator of an affected facility subject to § 60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.
(f) For the initial performance test required under § 60.8, compliance with the sulfur dioxide emission limits and percent reduction requirements under § 60.42b is based on the average emission rates and the average percent reduction for sulfur dioxide for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.
(g) After the initial performance test required under § 60.8, compliance with the sulfur dioxide emission limits and percent reduction requirements under § 60.42b is based on the average emission rates and the average percent reduction for sulfur dioxide for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for sulfur dioxide are calculated to show compliance with the standard.
(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid sulfur dioxide emissions data in calculating % Ps and Eho under paragraph (c), of this section whether or not the minimum emissions data requirements under § 60.46b are achieved. All valid emissions data, including valid sulfur dioxides emission data collected during periods of startup, shutdown and malfunction, shall be used in

lculating % Ps and Eho pursuant to paragraph (c) of this section.
During periods of malfunction or maintenance of the sulfur dioxide control systems when oil is combusted as ovided under § 60.42b(i), emission data are not used to calculate % Ps or Es under § 60.42b (a), (b) or (c), owever, the emissions data are used to determine compliance with the emission limit under § 60.42b(l).
) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance nd performance testing requirements of this section if the owner or operator obtains fuel receipts as described in 60.49b(r).

52 FR 47847, Dec. 16, 1987, as amended at 54 FR 51818, 51820, Dec. 18, 1989]

; 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.

a) The particulate matter emission standards and opacity limits under § 60.43b apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides emission standards under § 60.44b apply at all imes.
(b) Compliance with the particulate matter emission standards under § 60.43b shall be determined through performance testing as described in paragraph (d) of this section.
(c) Compliance with the nitrogen oxides emission standards under § 60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.
(d) To determine compliance with the particulate matter emission limits and opacity limits under § 60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8 using the following procedures and reference methods:
(1) Method 3B is used for gas analysis when applying Method 5 or Method 17.
(2) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of particulate matter as follows:
(i) Method 5 shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and
(ii) Method 17 may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after a wet FGD system. Do not use Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.
(iii) Method 5B is to be used only after wet FGD systems.
(3) Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
(4) For Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±14 °C (320±25 °F).
(5) For determination of particulate matter emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5, Method 5B or Method 17 by traversing the duct at the same sampling location.
(6) For each run using Method 5, Method 5B or Method 17, the emission rate expressed in nanograms per joule heat input is determined using:
(i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this section,
(ii) The dry basis F factor, and
(iii) The dry basis emission rate calculation procedure contained in Method 19.
(7) Method 9 is used for determining the opacity of stack emissions.
(e) To determine compliance with the emission limits for nitrogen oxides required under § 60.44b, the owner or operator of an affected facility shall conduct the performance test as required under § 60.8 using the continuous system for monitoring nitrogen oxides under § 60.48(b).
(1) For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under § 60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.
(2) Following the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the nitrogen oxides emission standards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam

nerating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding steam generating unit operating days.

Following the date on which the initial performance test is completed or is required to be completed under § .8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input pacity greater than 73 MW (250 million Btu/hour) and which combusts natural gas, distillate oil, or residual oil ving a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides andards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new)-day rolling average emission rate is calculated each steam generating unit operating day as the average of all the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

) Following the date on which the initial performance test is completed or required to be completed under § 60.8 this part, whichever date comes first, the owner or operator of an affected facility which has a heat input apacity of 73 MW (250 million Btu/hour) or less and which combusts natural gas, distillate oil, or residual oil aving a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the nitrogen ides standards under § 60.44b through the use of a 30-day performance test. During periods when performance sts are not requested, nitrogen oxides emissions data collected pursuant to § 60.48b(g)(1) or § 60.48b(g)(2) are sed to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission ports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day lling average emission rate is calculated each steam generating unit operating day as the average of all of the ourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

) If the owner or operator of an affected facility which combusts residual oil does not sample and analyze the sidual oil for nitrogen content, as specified in § 60.49b(e), the requirements of paragraph (iii) of this section apply nd the provisions of paragraph (iv) of this section are inapplicable.

) To determine compliance with the emissions limits for NOX required by § 60.44b(a)(4) or § 60.44b(l) for duct urners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this ection may be used:

l) The owner or operator of an affected facility shall conduct the performance test required under § 60.8 as ollows:

) The emissions rate (E) of NOX shall be computed using Equation of 1 this section:

```
= Esg + (Hg / Hb) (Esg - Eg)                                    (Eq. 1)

Where:

  E = emissions rate of NO(X) from the duct burner, ng/J (lb/million Btu)
      heat input
Esg = combined effluent emissions rate, in ng/J (lb/million Btu) heat input
      using appropriate F-Factor as described in Method 19
 Hg = heat input rate to the combustion turbine, in Joules/hour (million
      Btu/hour)
 Hb = heat input rate to the duct burner, in Joules/hour (million Btu/hour)
 Eg = emissions rate from the combustion turbine, in ng/J (lb/million Btu)
      heat input calculated using appropriate F-Factor as described in
      Method 19
```

(ii) Method 7E of appendix A of this part shall be used to determine the NOX concentrations. Method 3A or 3B of appendix A of this part shall be used to determine oxygen concentration.

(iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.

(iv) Compliance with the emissions limits under § 60.44b (a)(4) or § 60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the continuous emission monitoring system specified under § 60.48b for measuring NOX and oxygen and meet the requirements of § 60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NOX emissions rate at the outlet from the steam generating unit shall constitute the NOX emissions rate from the duct burner of the combined cycle system.

(g) The owner or operator of an affected facility described in § 60.44b(j) or § 60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the

eat loss method described in sections 5 and 7.3 of the ASME Power Test Codes 4.1 (see IBR § 60.17(h)). This emonstration of maximum heat input capacity shall be made during the initial performance test for affected acilities that meet the criteria of § 60.44b(j). It shall be made within 60 days after achieving the maximum roduction rate at which the affected facility will be operated, but not later than 180 days after initial start-up of ach facility, for affected facilities meeting the criteria of § 60.44b(k). Subsequent demonstrations may be required y the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the ffected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input apacity determined during this demonstration shall be used to determine the capacity utilization rate for the ffected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

h) The owner or operator of an affected facility described in § 60.44b(j) that has a heat input capacity greater than 73 MW (250 million Btu/hour) shall:

(1) Conduct an initial performance test as required under § 60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the nitrogen oxides emission standards under § 60.44b using Method 7, 7A, 7E, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the nitrogen oxides emission standards under § 60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E, or other approved reference methods.

[51 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51818, 51820, Dec. 18, 1989; 65 FR 61744, Oct. 17, 2000; 66 FR 18546, Apr. 10, 2001]

§ 60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the sulfur dioxide standards under § 60.42b shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O2) or carbon dioxide (CO2) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average sulfur dioxide emissions and percent reduction by:

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average sulfur dioxide input rate, or

(2) Measuring sulfur dioxide according to Method 6B at the inlet or outlet to the sulfur dioxide control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable sulfur dioxide and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B, Method 6A, or a combination of Methods 6 and 3 or 3B or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

(3) A daily sulfur dioxide emission rate, ED, shall be determined using the procedure described in Method 6A, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/million Btu) heat input.

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/million Btu) for 30 successive steam generating unit operating days using equation 19-20 of Method 19.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average sulfur dioxide emission rates measured by the CEMS required by paragraph (a) of this section and required under § 60.13(h) is expressed in ng/J or lb/million Btu heat input and is used to calculate the average emission rates under § 60.42b. Each 1-hour average sulfur dioxide emission rate must be based on more than 30 minutes of steam generating unit operation and include at least 2 data points with each representing a 15-minute period. Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than

l minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating ıy.
) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.
) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, and 3 (appendix B).
:) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with rocedure 1 (appendix F).
l) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the ılfur dioxide CEMS at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated ourly potential sulfur dioxide emissions of the fuel combusted, and the span value of the CEMS at the outlet to ıe sulfur dioxide control device is 50 percent of the maximum estimated hourly potential sulfur dioxide emissions f the fuel combusted.
) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission ıonitoring requirements of this section if the owner or operator obtains fuel receipts as described in § 60.49b(r).

52 FR 47849, Dec. 16, 1987; as amended at 54 FR 51818, Dec. 18, 1989; corrected at 55 FR 18876, May 7, 990]

60.48b Emission monitoring for particulate matter and nitrogen oxides.

a) The owner or operator of an affected facility subject to the opacity standard under § 60.43b shall install, alibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions ischarged to the atmosphere and record the output of the system.
b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected acility shall comply with either paragraphs (b)(1) or (b)(2) of this section.
1) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, or measuring nitrogen oxides emissions discharged to the atmosphere; or
2) If the owner or operator has installed a nitrogen oxides emission rate continuous emission monitoring system CEMS) to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of art 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or perator shall also meet the requirements of § 60.49b. Data reported to meet the requirements of § 60.49b shall ıot include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the lata have been bias adjusted according to the procedures of part 75 of this chapter.
c) The continuous monitoring systems required under paragraph (b) of this section shall be operated and data ecorded during all periods of operation of the affected facility except for continuous monitoring system reakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor equired by paragraph (b) of this section and required under § 60.13(h) shall be expressed in ng/J or lb/million Btu ıeat input and shall be used to calculate the average emission rates under § 60.44b. The 1-hour averages shall be calculated using the data points required under § 60.13(b). At least 2 data points must be used to calculate each 1-hour average.
(e) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.
(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.
(2) For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span Values for Nitrogen Oxides (PPM)
Natural gas	500
Oil	500
Coal	1,000
Combination	500(x + y) + 1,000z

where:

x is the fraction of total heat input derived from natural gas,
y is the fraction of total heat input derived from oil, and
z is the fraction of total heat input derived from coal.
3) All span values computed under paragraph (e)(2) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm.
f) When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.
(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:
(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section, or
(2) Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to § 60.49b(c).
(h) The owner or operator of a duct burner, as described in § 60.41b, which is subject to the NOX standards of § 60.44b(a)(4) or § 60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NOX emissions.
(i) The owner or operator of an affected facility described in § 60.44b(j) or § 60.44b(k) is not required to install or operate a continuous monitoring system for measuring nitrogen oxides emissions.

[51 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51820, Dec. 18, 1989; 63 FR 49442, Sept. 16, 1998; 66 FR 18546, Apr. 10, 2001]

§ 60.49b Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by § 60.7. This notification shall include:
(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,
(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § § 60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (l), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(l),
(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and,
(4) Notification that an emerging technology will be used for controlling emissions of sulfur dioxide. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42b(a) unless and until this determination is made by the Administrator.
(b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under § § 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B. The owner or operator of each affected facility described in § 60.44b(j) or § 60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.
(c) The owner or operator of each affected facility subject to the nitrogen oxides standard of § 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of § 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under § 60.48b(g)(2) and the records to be maintained under § 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. The plan shall:
(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

Include the data and information that the owner or operator used to identify the relationship between nitrogen des emission rates and these operating conditions;
Identify how these operating conditions, including steam generating unit load, will be monitored under § 48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the ality assurance procedures or practices that will be employed to ensure that the data generated by monitoring ese operating conditions will be representative and accurate; and the type and format of the records of these erating conditions, including steam generating unit load, that will be maintained by the owner or operator under 0.49b(j).
he plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and monitored operating conditions, including steam generating unit load, identified in the plan.
) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel mbusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, tural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is termined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each lendar month.
) For an affected facility that combusts residual oil and meets the criteria under § § 60.46b(e)(4), 60.44b (j), or), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the lected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons 3R-see § 60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be orated based on the ratio of residual oils of different nitrogen content in the fuel blend.
) For facilities subject to the opacity standard under § 60.43b, the owner or operator shall maintain records of pacity.
) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to ie nitrogen oxides standards under § 60.44b shall maintain records of the following information for each steam enerating unit operating day:
1) Calendar date.
2) The average hourly nitrogen oxides emission rates (expressed as NO2) (ng/J or lb/million Btu heat input) ieasured or predicted.
3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of ach steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for ie preceding 30 steam generating unit operating days.
4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides mission rates are in excess of the nitrogen oxides emissions standards under § 60.44b, with the reasons for such xcess emissions as well as a description of corrective actions taken.
5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, ncluding reasons for not obtaining sufficient data and a description of corrective actions taken.
6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
(h) The owner or operator of any affected facility in any category listed in paragraphs (h) (1) or (2) of this section is required to submit excess emission reports for any excess emissions which occurred during the reporting period.
(1) Any affected facility subject to the opacity standards under § 60.43b(e) or to the operating parameter monitoring requirements under § 60.13(i)(1).
(2) Any affected facility that is subject to the nitrogen oxides standard of § 60.44b, and that
(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or
(ii) Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under § 60.48b(g)(1) or steam generating unit operating conditions under § 60.48b(g)(2).
(3) For the purpose of § 60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under § 60.43b(f).

i) For purposes of § 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average itrogen oxides emission rate, as determined under § 60.46b(e), which exceeds the applicable emission limits in § 0.44b.

i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under § 60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.
j) The owner or operator of any affected facility subject to the sulfur dioxide standards under § 60.42b shall submit eports.
(k) For each affected facility subject to the compliance and performance testing requirements of § 60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:
(1) Calendar dates covered in the reporting period.
(2) Each 30-day average sulfur dioxide emission rate (ng/J or 1b/million Btu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken.
(3) Each 30-day average percent reduction in sulfur dioxide emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken.
(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken.
(5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.
(6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
(7) Identification of times when hourly averages have been obtained based on manual sampling methods.
(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3.
(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
(11) The annual capacity factor of each fired as provided under paragraph (d) of this section.
(l) For each affected facility subject to the compliance and performance testing requirements of § 60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:
(1) Calendar dates when the facility was in operation during the reporting period;
(2) The 24-hour average sulfur dioxide emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;
(3) Identification of the steam generating unit operating days that coal or oil was combusted for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken.
(4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.
(5) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
(6) Identification of times when hourly averages have been obtained based on manual sampling methods.
(7) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
(8) Description of any modifications to the CEMS which could affect the ability of the CEMS to comply with Performance Specification 2 or 3.
(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
(m) For each affected facility subject to the sulfur dioxide standards under § 60.42(b) for which the minimum amount of data required under § 60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

) The number of hourly averages available for outlet emission rates and inlet emission rates.
) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in ethod 19, section 7.

) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet nission rate, as calculated in Method 19, section 7.
) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as etermined in Method 19, section 7.
) If a percent removal efficiency by fuel pretreatment (i.e., % Rf) is used to determine the overall percent duction (i.e., % Ro) under § 60.45b, the owner or operator of the affected facility shall submit a signed statement ith the report.
) Indicating what removal efficiency by fuel pretreatment (i.e., % Rf) was credited during the reporting period;
) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting eriod, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all iels received at the affected facility during the reporting period.
) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit.
) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the ercent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of lethod 19 (appendix A) and listing the heat content and sulfur content of each fuel before and after fuel retreatment.
) All records required under this section shall be maintained by the owner or operator of the affected facility for a eriod of 2 years following the date of such record.
) The owner or operator of an affected facility described in § 60.44b(j) or (k) shall maintain records of the ollowing information for each steam generating unit operating day:
1) Calender date,
2) The number of hours of operation, and
3) A record of the hourly steam load.
q) The owner or operator of an affected facility described in § 60.44b(j) or § 60.44b(k) shall submit to the Administrator a report containing:
1) The annual capacity factor over the previous 12 months;
2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and
3) If the affected facility meets the criteria described in § 60.44b(j), the results of any nitrogen oxides emission ests required during the reporting period, the hours of operation during the reporting period, and the hours of peration since the last nitrogen oxides emission test.
(r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under § 60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in § 60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the reporting period.
(s) Facility specific nitrogen oxides standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:
(1) Definitions.
Oxidation zone is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.
Reducing zone is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.
Total inlet air is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.
(2) Standard for nitrogen oxides.
(i) When fossil fuel alone is combusted, the nitrogen oxides emission limit for fossil fuel in § 60.44b(a) applies.
(ii) When natural gas and chemical by-product waste are simultaneously combusted, the nitrogen oxides emission limit is 289 ng/J (0.67 lb/million Btu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.
(3) Emission monitoring.
(i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation

one, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.
i) The nitrogen oxides emission limit shall be determined by the compliance and performance test methods and rocedures for nitrogen oxides in § 60.46b(i).
ii) The monitoring of the nitrogen oxides emission limit shall be performed in accordance with § 60.48b.
4) Reporting and recordkeeping requirements.
i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.
ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph a)(3) of this section for a period of 2 years following the date of such record.
iii) The owner of operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping equirements of this section.
(t) Facility-specific nitrogen oxides standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:
(1) Definitions.
Air ratio control damper is defined as the part of the low nitrogen oxides burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.
Flue gas recirculation line is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.
(2) Standard for nitrogen oxides.
(i) When fossil fuel alone is combusted, the nitrogen oxides emission limit for fossil fuel in § 60.44b(a) applies.
(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the nitrogen oxides emission limit is 473 ng/J (1.1 lb/million Btu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.
(3) Emission monitoring for nitrogen oxides.
(i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.
(ii) The nitrogen oxides emission limit shall be determined by the compliance and performance test methods and procedures for nitrogen oxides in § 60.46b.
(iii) The monitoring of the nitrogen oxides emission limit shall be performed in accordance with § 60.48b.
(4) Reporting and recordkeeping requirements.
(i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by § 60.49b(i).
(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.
(iii) The owner of operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of § 60.49b.
(u) Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. (1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site") and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of § § 60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).
(i) The site shall equip the natural gas-fired boilers with low nitrogen oxide (NOX) technology.
(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NOX emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.
(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a stack test to quantify criteria pollutant emissions.
(2) [Reserved]
(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO2 and/or NOX and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before

bmitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to tain their agreement to submit reports in this alternative format.
) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be bmitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

1 FR 42788, Nov. 25, 1986, as amended at 52 FR 47842, Dec. 16, 1987; 54 FR 51818, 51820, Dec. 18, 1989;) FR 28061, May 30, 1995; 61 FR 14029, Mar. 29, 1996; 62 FR 52622, Oct. 8, 1997; 63 FR 49442, Sept. 16, 998; 64 FR 7458, Feb. 12, 1999; 65 FR 13242, Mar. 13, 2000]

ownloaded from Enflex on 5/15/02

ubpart Dc -- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating nits

60.40c Applicability and delegation of authority.

a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each team generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and iat has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, ut greater than or equal to 2.9 MW (10 million Btu/hr).
b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 0.48c(a)(4) shall be retained by the Administrator and not transferred to a State.
c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not ubject to the sulfur dioxide (SO2) or particulate matter (PM) emission limits, performance testing requirements, or nonitoring requirements under this subpart (§ § 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.
d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research s not considered a modification under § 60.14.

As amended at 61 FR 20734, May 8, 1996]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.
Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam ch a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.
Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing and Materials in ASTM D388-77, "Standard Specification for Classification of Coals by Rank" (incorporated by reference -- see § 60.17); coal refuse; and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are included in this definition for the purposes of this subpart.
Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.
Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.
Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.
Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any

her purpose).
onventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, tmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.
listillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the merican Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for uel Oils" (incorporated by reference – see § 60.17).
)ry flue gas desulfurization technology means a sulfur dioxide (SO_2) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of he steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.
Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.
Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).
Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.
Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.
Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.
Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).
Heat transfer medium means any material that is used to transfer heat from one point to another point.
Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.
Natural gas means
(1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or
(2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835-86, 87, 91, or 97, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference – see § 60.17).
Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.
Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.
Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.
Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.
Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference – see § 60.17).
Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.
Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.
Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam

ıerating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the am generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid terial. This definition includes devices where the liquid material is subsequently converted to another form. aline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and lium compounds.

et scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust ses from a steam generating unit to control emissions of particulate matter (PM) or SO2.

ood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not ited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from od or other forest residues.

s amended at 61 FR 20734, May 8, 1996; 65 FR 61744, Oct. 17, 2000]

60.42c Standard for sulfur dioxide.

) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the initial erformance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, e owner or operator of an affected facility that combusts only coal shall neither: (1) cause to be discharged into e atmosphere from that affected facility any gases that contain SO2 in excess of 10 percent (0.10) of the otential SO2 emission rate (90 percent reduction); nor (2) cause to be discharged into the atmosphere from that fected facility any gases that contain SO2 in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is ombusted with other fuels, the affected facility is subject to the 90 percent SO2 reduction requirement specified in is paragraph and the emission limit is determined pursuant to paragraph (e)(2) of this section.

) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the initial erformance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, ıe owner or operator of an affected facility that:

l) Combusts coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 0 percent (0.20) of the potential SO2 emission rate (80 percent reduction); nor

i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 20 ng/J (1.2 lb/million Btu) heat input. If coal is fired with coal refuse, the affected facility is subject to paragraph a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 0 percent SO2 reduction requirement specified in paragraph (a) of this section and the emission limit determined ursuant to paragraph (e)(2) of this section.

2) Combusts only coal and that uses an emerging technology for the control of SO2 emissions shall neither:

i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 50 percent (0.50) of the potential SO2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 260 ng/J (0.60 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 million Btu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil shall

ause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 15 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that ombusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The ercent reduction requirements are not applicable to affected facilities under this paragraph.
e) On and after the date on which the initial performance test is completed or required to be completed under § 0.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or oal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any ases that contain SO2 in excess of the following:
1) The percent of potential SO2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, or any affected facility that
i) Combusts coal in combination with any other fuel,
ii) Has a heat input capacity greater than 22 MW (75 million Btu/hr), and
iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and
2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E(s) = (K(a)H(a) + K(b)H(b) + K(c)H(c)) / H(a) + H(b) + H(c))$$

where

E(s) is the SO(2) emission limit, expressed in ng/J or lb/million Btu heat input,
K(a) is 520 ng/J (1.2 lb/million Btu),
K(b) is 260 ng/J (0.60 lb/million Btu),
K(c) is 215 ng/J (0.50 lb/million Btu),
H(a) is the heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [million Btu]
H(b) is the heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (million Btu)
H(c) is the heat input from the combustion of oil, in J (million Btu).

(f) Reduction in the potential SO_2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:
(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2 emission rate; and
(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.
(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.
(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.
(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).
(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).
(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).
(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[As amended at 65 FR 61744, Oct. 17, 2000]

§ 60.43c Standard for particulate matter.

On and after the date on which the initial performance test is completed or required to be completed under § 8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or nbusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, all cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of following emission limits:
22 ng/J (0.051 lb/million Btu) heat input if the affected facility combusts only coal, or combusts coal with other els and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
) 43 ng/J (0.10 lb/million Btu) heat imput if the affected facility combusts coal with other fuels, has an annual pacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable quirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for els other than coal.
) On and after the date on which the initial performance test is completed or required to be completed under § .8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood or mbusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 million u/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that ntain PM in excess of the following emissions limits:
) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood greater than) percent (0.30); or
) 130 ng/J (0.30 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood of 30 rcent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility an annual capacity factor for wood of 30 percent (0.30) or less.
) On and after the date on which the initial performance test is completed or required to be completed under §).8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the mosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), xcept for one 6-minute period per hour of not more than 27 percent opacity.
l) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, r malfunction.

As amended at 65 FR 61744, Oct. 17, 2000]

60.44c Compliance and performance test methods and procedures for sulfur dioxide.

a) Except as provided in paragraphs (g) and (h) of this section and in § 60.8(b), performance tests required under 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, s applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to ne initial performance test unless otherwise specified by the Administrator.
b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of he steam generating unit. Compliance with the percent reduction requirements and SO2 emission limits under § 0.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during he 30-day period does not have to be the maximum design heat input capacity, but must be representative of uture operating conditions.
c) After the initial performance test required under paragraph (b) and § 60.8, compliance with the percent eduction requirements and SO2 emission limits under § 60.42c is based on the average percent reduction and he average S02 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO2 emission rate are calculated to show compliance with the standard.
(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 are used to determine the hourly SO2 emission rate (Eho) and the 30-day average SO2 emission rate (Eao). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS). Method 19 shall be used to calculate Eao when using daily fuel sampling or Method 6B.
(e) If coal, oil, or coal and oil are combusted with other fuels:
(1) An adjusted Eho (Ehoo) is used in Equation 19-19 of Method 19 to compute the adjusted Eao (Eaoo). The Ehoo is computed using the following formula:

$$E(ho)^* = [E(ho) - E(w)(1 - X(k))] / X(k)$$

where:

E(ho)° is the adjusted E(ho) ng/J (lb/million Btu)

E(ho) is the hourly SO(2) emission rate, ng/J (lb/million Btu)

E(w) is the SO(2) concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and alysis procedures in Method 19, ng/J (lb/million Btu). The value E(w) for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E(w) if the owner or operator elects to assume E(w) = O.

X(k)is the fraction of total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) [where percent reduction is not required] does not have to measure the parameters Ew or Xk if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19.
(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO2 emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:
(1) If only coal is combusted, the percent of potential SO2 emission rate is computed using the following formula:

%P(s) = 100(1 - %R(g) / 100)(1 - %R(f) / 100)

where

%P(s) is the percent of potential SO(2) emission rate, in percent
%R(g) is the SO(2) removal efficiency of the control device as determined by Method 19, in percent
%R(f) is the SO(2) removal efficiency of fuel pretreatment as determined by Method 19, in percent

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:
(i) To compute the %Ps, an adjusted %Rg (%Rgo) is computed from Eaoo from paragraph (e)(1) of this section and an adjusted average SO2 inlet rate (Eaio) using the following formula:

%R(g)° = 100(1.0 - E(ao)° / E(ai)°)

%R(g)° is the adjusted %R(g) in percent
E(ao)° is the adjusted E(ao) ng/J (lb/million Btu)
E(ai)° is the adjusted average SO(2) inlet rate, ng/J (lb/million Btu)

(ii) To compute Eaio, an adjusted hourly SO2 inlet rate (Ehio) is used. The Ehio is computed using the following formula:

E(hi)° = [E(hi) - E(w) (1 - X(k))] / X(k)

where:

E(hi)° is the adjusted E(hi), ng/J (lb/million Btu)
E(w) is the SO(2) concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19, ng/J (lb/million Btu). The value E(w) for each fuel lot is used for each hourly average during the

time that the lot is being combusted. The owner or operator does not have to measure E(w) if the owner or operator elects to assume E(w) = O.

X(k) is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil lfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling id analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil ntains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the l in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate mpliance with the SO2 standards based on fuel supplier certification, the performance test shall consist of the rtification, the certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

The owner or operator of an affected facility seeking to demonstrate compliance with the SO2 standards under 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by perating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the itial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 4-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by ie manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine ie annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by ie manufacturer shall be used.

) The owner or operator of an affected facility shall use all valid SO2 emissions data in calculating %Ps and Eho nder paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data equirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods f startup, shutdown, and malfunction, shall be used in calculating %Ps or Eho pursuant to paragraphs (d), (e), or) of this section, as applicable.

As amended at 65 FR 61744, Oct. 17, 2000]

60.45c Compliance and performance test methods and procedures for particulate matter.

a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall onduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as equested by the Administrator, to determine compliance with the standards using the following procedures and eference methods.

1) Method 1 shall be used to select the sampling site and the number of traverse sampling points.

2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, or Method 17.

3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:

i) Method 5 may be used only at affected facilities without wet scrubber systems.

ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas emperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B may be used in Method 17 only if Method 17 is used in conjunction with a wet scrubber system. Method 17 shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

(7) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:

(i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,

The dry basis F-factor, and
The dry basis emission rate calculation procedure contained in Method 19 (appendix A).
Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.
The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § .43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating ; steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial rformance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24- ur average firing rate for the affected facility is less than the maximum design heat input capacity stated by the anufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the nual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the anufacturer shall be used.

s amended at 65 FR 61744, Oct. 17, 2000]

60.46c Emission monitoring for sulfur dioxide

a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject the SO2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring O2 concentrations and either oxygen or carbon dioxide concentrations at the outlet of the SO2 control device (or ne outlet of the steam generating unit if no SO2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall neasure SO2 concentrations and either oxygen or carbon dioxide concentrations at both the inlet and outlet of the SO2 control device.
b) The 1-hour average SO2 emission rates measured by a CEMS shall be expressed in ng/J or lb/million Btu heat nput and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO2 emission rate must be based on at least 30 minutes of operation and include at least 2 data points representing two 15-minute periods. Hourly SO2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.
(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.
(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B).
(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).
(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO2 CEMS at the inlet to the SO2 control device shall be 125 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted, and the span value of the SO2 CEMS at the outlet from the SO2 control device shall be 50 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted.
(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO2 CEMS at the outlet from the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted.
(d) As an alternative to operating a CEMS at the inlet to the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO2 emission rate by using Method 6B. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B shall be conducted pursuant to paragraph (d)(3) of this section.
(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average SO2 input rate.
(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fule tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as

: daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis ows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall sure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur ntent to be 0.5 weight percent sulfur or less.
) Method 6B may be used in lieu of CEMS to measure SO2 at the inlet or outlet of the SO2 control system. An tial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test all consist of three paired runs of a suitable SO2 and carbon dioxide measurement train operated at the ndidate location and a second similar train operated according to the procedures in § 3.2 and the applicable ocedures in section 7 of Performance Specification 2 (appendix B). Method 6B, Method 6A, or a combination of ethods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the cond train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate mple volume is collected; however, both sampling trains are to be operated similarly. For the location to be lequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be ss than 10 percent (0.10).
) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities bject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate mpliance with the SO2 standards based on fuel supplier certification, as described under § 60.48c(f) (1), (2), or), as applicable.
) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or nducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at ast 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If is minimum data requirement is not met with a single monitoring system, the owner or operator of the affected cility shall supplement the emission data with data collected with other monitoring systems as approved by the dministrator.

As amended at 65 FR 61744, Oct. 17, 2000]

60.47c Emission monitoring for particulate matter.

a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity tandards under § 60.43c shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the missions discharged to the atmosphere and record the output of the system.
b) All COMS for measuring opacity shall be operated in accordance with the applicable procedures under erformance Specification 1 (appendix B). The span value of the opacity COMS shall be between 60 and 80 ercent.

As amended at 65 FR 61744, Oct. 17, 2000]

60.48c Reporting and recordkeeping requirements.

a) The owner or operator of each affected facility shall submit notification of the date of construction or econstruction, anticipated startup, and actual startup, as provided by § 60.7 of this part. This notification shall nclude:
1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected acility.
2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.
3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
(4) Notification if an emerging technology will be used for controlling SO2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.
(b) The owner or operator of each affected facility subject to the SO2 emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B.

The owner or operator of each coal-fired, residual oil-fired, or wood-fired affected facility subject to the opacity
ts under § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility
ich occur during the reporting period.
The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or
rcent reduction requirements under § 60.42c shall submit reports to the Administrator.
The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or
rcent reduction requirements under § 60.43c shall keep records and submit reports as required under paragraph
) of this section, including the following information, as applicable.
) Calendar dates covered in the reporting period.
) Each 30-day average SO2 emission rate (nj/J or lb/million Btu), or 30-day average sulfur content (weight
ercent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance
ith the emission standards; and a description of corrective actions taken.
) Each 30-day average percent of potential SO2 emission rate calculated during the reporting period, ending with
ie last 30-day period; reasons for any noncompliance with the emission standards; and a description of the
orrective actions taken.
) Identification of any steam generating unit operating days for which SO2 or diluent (oxygen or carbon dioxide)
ata have not been obtained by an approved method for at least 75 percent of the operating hours; justification for
ot obtaining sufficient data; and a description of corrective actions taken.
5) Identification of any times when emissions data have been excluded from the calculation of average emission
ates; justification for excluding data; and a description of corrective actions taken if data have been excluded for
periods other than those during which coal or oil were not combusted in the steam generating unit.
6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.
7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.
(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.
(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 (appendix B).
(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.
(f) Fuel supplier certification shall include the following information:
(1) For distillate oil:
(i) The name of the oil supplier; and
(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c.
(2) For residual oil:
(i) The name of the oil supplier;
(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and
(iv) The method used to determine the sulfur content of the oil.
(3) For coal:
(i) The name of the coal supplier;
(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);
(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and
(iv) The methods used to determine the properties of the coal.
(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the ual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual acity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month ng average basis with a new annual capacity factor calculated at the end of the calendar month.
All records required under this section shall be maintained by the owner or operator of the affected facility for a iod of two years following the date of such record.
The reporting period for the reports required under this subpart is each six-month period. All reports shall be omitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

amended at 64 FR 7458, Feb. 12, 1999; 65 FR 61744, Oct. 17, 2000]

bpart G -- Standards of Performance for Nitric Acid Plants.

60.70 Applicability and designation of affected facility.

) The provisions of this subpart are applicable to each nitric acid production unit, which is the affected facility.
) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 71, is subject to the requirements of this subpart.

2 FR 37936, July 25, 1977]

60.71 Definitions.

s used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A this part.
) *Nitric acid production unit* means any facility producing weak nitric acid by either the pressure or atmospheric essure process.
) *Weak nitric acid* means acid which is 30 to 70 percent in strength.

60.72 Standard for nitrogen oxides.

) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no wner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from ny affected facility any gases which:
1) Contain nitrogen oxides, expressed as NO_2, in excess of 1.5 kg per metric ton of acid produced (3.0 lb per ton), ie production being expressed as 100 percent nitric acid.
2) Exhibit 10 percent opacity, or greater.

39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975]

60.73 Emission monitoring.

a) The source owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides (NO_x). The pollutant gas mixtures under Performance Specification 2 and for calibration checks under § 60.13(d) of this part shall be nitrogen dioxide (NO_2). The span value shall be 500 ppm of NO_2. Method 7 shall be used for the performance evaluations under § 60.13(c). Acceptable alternative methods to Method 7 are given in § 60.74(c).
(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data averages by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., kg/metric ton per ppm (lb/ton per ppm). The conversion factor shall be reestablished during any performance test under § 60.8 or any continuous monitoring system performance evaluation under § 60.13(c).

) The owner or operator shall record the daily production rate and hours of operation.
) (Reserved)
) For the purpose of reports required under § 60.7(c), periods of excess emissions that shall be reported are efined as any 3-hour period during which the average nitrogen oxides emissions (arithmetic average of three ontiguous 1-hour periods) as measured by a continuous monitoring system exceed the standard under § 0.72(a).

39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975; 50 FR 15894, Apr. 22, 1985; 54 FR 666, Feb. 14, 1989]
60.74 Test methods and procedures.

a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph c) of this section.
b) The owner or operator shall determine compliance with the NO_x standard in § 60.72 as follows:
1) The emission rate (E) of NO_x shall be computed for each run using the following equation:

$$E = (C_s Q_{sd}) / (P K)$$

where:

E = emission rate of NO_x as NO_2, kg/metric ton (lb/ton) of 100 percent nitric acid.
C_s = concentration of NO_x as NO_2, g/dscm (lb/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = acid production rate, metric ton/hr (ton/hr) or 100 percent nitric acid.
K = conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 7 shall be used to determine the NO_x concentration of each grab sample. Method 1 shall be used to select the sampling site, and the sampling point shall be the centroid of the stack or duct or at a point no closer to the walls than 1 m (3.28 ft). Four grab samples shall be taken at approximately 15-minute intervals. The arithmetic mean of the four sample concentrations shall constitute the run value (C_s).
(3) Method 2 shall be used to determine the volumetric flow rate (Q_{sd}) of the effluent gas. The measurement site shall be the same as for the NO_x sample. A velocity traverse shall be made once per run within the hour that the NOx samples are taken.
(4) The methods of § 60.73(c) shall be used to determine the production rate (P) of 100 percent nitric acid for each run. Material balance over the production system shall be used to confirm the production rate.
(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
(1) For Method 7, Method 7A, 7B, 7C, or 7D may be used. If Method 7C or 7D is used, the sampling time shall be at least 1 hour.
(d) The owner or operator shall use the procedure in § 60.73(b) to determine the conversion factor for converting the monitoring data to the units of the standard.

[39 FR 20794, June 14, 1974, as amended at 50 FR 15894, Apr. 22, 1985; 54 FR 6666, Feb. 14, 1989]

wnloaded from Enflex on 5-15-02

bpart H -- Standards of Performance for Sulfuric Acid Plants.

60.80 Applicability and designation of affected facility.

) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.
) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 971, is subject to the requirements of this subpart.

2 FR 37936, July 25, 1977]

60.81 Definitions.

s used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A this part.
) *Sulfuric acid production unit* means any facility producing sulfuric acid by the contact process by burning emental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not clude facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the tmosphere of sulfur dioxide or other sulfur compounds.
) *Acid mist* means sulfuric acid mist, as measured by Method 8 of appendix A to this part or an equivalent or lternative method.

6 FR 24877, Dec. 23, 1971, as amended at 39 FR 20794, June 14, 1974]

60.82 Standard for sulfur dioxide.

a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no wner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from ny affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb er ton), the production being expressed as 100 percent H_2SO_4.

39 FR 20794, June 14, 1974]

60.83 Standard for acid mist.

a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no wner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from ny affected facility any gases which:
1) Contain acid mist, expressed as H_2SO_4, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per on), the production being expressed as 100 percent H_2SO_4.
2) Exhibit 10 percent opacity, or greater.

39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975]

§ 60.84 Emission monitoring.

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under § 60.13(d), shall be sulfur dioxide (SO_2). Method 8 shall be used for conducting monitoring system performance evaluations under § 60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide.
(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the

propriate conversion factor for each eight-hour period as follows:

= k[(1.000 - 0.015r) / (r - s)]

here:

CF = conversion factor (kg/metric ton per ppm, lb/ton per ppm).
k = constant derived from material balance. For determining CF in metric units, k = 0.0653. For determining CF in English units, k = 0.1306.
r = percentage of sulfur dioxide by volume entering the gas converter. Appropriate corrections must be made for air injection plants subject to the Administrator's approval.
s = percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).
d) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO2 emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO2, O2, and CO2 (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO2 monitor shall be as specified in paragraph (b) of this section. The span value for CO2 (if required) shall be 10 percent and for O2 shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO2 emission rate as follows:

E(s) = (C(s)S) / [0.265 - (0.126 %O(2)) - (A %CO(2))]

where:

E(2) = emission rate of SO(2), kg/metric ton (lb/ton) of 100 percent of H(2)SO(4) produced.
C(s) = concentration of SO(2), kg/dscm (lb/dscf).
S = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H(2)SO(4) produced.
%O(2) = oxygen concentration, percent dry basis.
A = auxiliary fuel factor.
= 0.00 for no fuel.
= 0.0226 for methane.
= 0.0217 for natural gas.
= 0.0196 for propane.
= 0.0172 for No 2 oil.
= 0.0161 for No 6 oil.
= 0.0148 for coal.
= 0.0126 for coke.
%CO(2) = carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From —	To —	Multiply by —
g/scm	kg/scm	10[-3]
mg/scm	kg/scm	10[-6]
ppm (SO(2))	kg/scm	2.660 x 10[-6]
ppm (SO(2))	lb/scf	1.660 x 10[-7]

For the purpose of reports under § 60.7(c), periods of excess emissions shall be all three-hour periods (or the ithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide iissions exceed the applicable standards under § 60.82.

) FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975; 48 FR 23611, May 25, 1983; 48 FR 00, Sept. 29, 1983; 48 FR 48669, Oct. 20, 1983; FR 51 34461 July 1, 1986; 54 FR 6666, Feb. 14, 1989; 65 FR 744, Oct. 17, 2000]

60.85 Test methods and procedures.

) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods id procedures the test methods in appendix A of this part or other methods and procedures as specified in this ction, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph) of this section.
) The owner or operator shall determine compliance with the SO2acid mist, and visible emission standards in § §).82 and 60.83 as follows:
) The emission rate (E) of acid mist or SO2shall be computed for each run using the following equation:

= (CQ(sd)) / (PK)

vhere:

E = emission rate of acid mist or SO(2) kg/metric ton (lb/ton) of 100 percent H(2)SO(4) produced.
C = concentration of acid mist or SO(2), g/dscm (lb/dscf).
Q(sd) = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
P = production rate of 100 percent H(2)SO(4), metric ton/hr (ton/hr).
K = conversion factor, 1000 g/kg (1.0 lb/lb).

2) Method 8 shall be used to determine the acid mist and SO2 concentrations (C's) and the volumetric flow rate Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample olume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).
3) Suitable methods shall be used to determine the production rate (P) of 100 percent H2SO4 for each run. Material balance over the production system shall be used to confirm the production rate.
4) Method 9 and the procedures in § 60.11 shall be used to determine opacity.
c) The owner or operator may use the following as alternatives to the reference methods and procedures pecified in this section:
1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, he following procedure may be used instead of determining the volumetric flow rate and production rate:
i) The integrated technique of Method 3 is used to determine the O2 concentration and, if required, CO2 :oncentration.
ii) The SO2 or acid mist emission rate is calculated as described in § 60.84(d), substituting the acid mist :oncentration for Cs as appropriate.

39 FR 20794, June 14, 1974, as amended at 48 FR 44701, Sept. 29, 1983; 48 FR 48669, Oct. 20, 1983; FR 51 34461 July 1, 1986; 54 FR 6666, Feb. 14, 1989]

APPENDIX H –
NESHAP

- 40 CFR 61 SUBPART R – RADON EMISSIONS FROM PHOSPHOGYPSUM STACKS
- 40 CFR 63 SUBPART AA – PHOSPHORIC ACID MANUFACTURING PLANTS (http://www.epa.gov/ttn/atw/phosph/phosphpg.html). Updated July 12, 2002
- 40 CFR 63 SUBPART BB – PHOSPHATE FERTILIZER PRODUCTION PLANTS (http://www.epa.gov/ttn/atw/phosph/phosphpg.html). Updated July 12, 2002

40 CFR 61 Subpart R - National Emission Standards for Radon Emissions From Phosphogypsum Stacks

§ 61.200 Designation of facilities.

The provisions of this subpart apply to each owner or operator of a phosphogypsum stack, and to each person who owns, sells, distributes, or otherwise uses any quantity of phosphogypsum which is produced as a result of wet acid phosphorus production or is removed from any existing phosphogypsum stack.

§ 61.201 Definitions.

As used in this subpart, all terms not defined here have the meaning given them in the Clean Air Act or subpart A of part 61. The following terms shall have the following specific meanings:
(a) Inactive stack means a stack to which no further routine additions of phosphogypsum will be made and which is no longer used for water management associated with the production of phosphogypsum. If a stack has not been used for either purpose for two years, it is presumed to be inactive.
(b) Phosphogypsum is the solid waste byproduct which results from the process of wet acid phosphorus production.
(c) Phosphogypsum stacks or stacks are piles of waste resulting from wet acid phosphorus production, including phosphate mines or other sites that are used for the disposal of phosphogypsum.

§ 61.202 Standard.

Each person who generates phosphogypsum shall place all phosphogypsum in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by this subpart. After a phosphogypsum stack has become an inactive stack, the owner or operator shall assure that the stack does not emit more than 20 pCi/(m[2]-sec) (1.9 pCi/(ft[2]-sec)) of radon-222 into the air.

[As amended at 65 FR 61744, Oct. 17, 2000]

§ 61.203 Radon monitoring and compliance procedures.

(a) Within sixty days following the date on which a stack becomes an inactive stack, or within ninety days after the date on which this subpart first took effect if a stack was already inactive on that date, each owner or operator of an inactive phosphogypsum stack shall test the stack for radon-222 flux in accordance with the procedures described in 40 CFR part 61, appendix B, Method 115. EPA shall be notified at least 30 days prior to each such emissions test so that EPA may, at its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted, then the owner or operator shall notify EPA and test as soon as conditions permit.
(b)(1) Within ninety days after the testing is required, the owner or operator shall provide EPA with a report detailing the actions taken and the results of the radon-222 flux testing. Each report shall also include the following information:
(i) The name and location of the facility;
(ii) A list of the stacks at the facility including the size and dimensions of each stack;
(iii) The name of the person responsible for the operation of the facility and the name of the person preparing the

ort (If different);
A description of the control measures taken to decrease the radon flux from the source and any actions taken nsure the long term effectiveness of the control measures; and
The results of the testing conducted, including the results of each measurement.

Each report shall be signed and dated by a corporate officer in charge of the facility and contain the following claration immediately above the signature line: "I certify under penalty of law that I have personally examined d am familiar with the information submitted herein and based on may inquiry of those individuals immediately sponsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I n aware that there are significant penalties for submitting false information including the possibility of fine and prisonment. See, 18 U.S.C. 1001."
) If the owner or operator of an inactive stack chooses to conduct measurements over a one year period as rmitted by Method 115 in appendix B to part 61, within ninety days after the testing commences the owner or erator shall provide EPA with an initial report, including the results of the first measurement period and a hedule for all subsequent measurements. An additional report containing all the information in § 61.203(b) shall submitted within ninety days after completion of the final measurements.
) If at any point an owner or operator of a stack once again uses an inactive stack for the disposal of osphogypsum or for water management, the stack ceases to be in inactive status and the owner or operator ust notify EPA in writing within 45 days. When the owner or operator ceases to use the stack for disposal of osphogypsum or water management, the stack will once again become inactive and the owner or operator must tisfy again all testing and reporting requirements for inactive stacks.
) If an owner or operator removes phosphogypsum from an inactive stack, the owner shall test the stack in ccordance with the procedures described in 40 CFR part 61, appendix B, Method 115. The stack shall be tested ithin ninety days of the date that the owner or operator first removes phosphogypsum from the stack, and the test hall be repeated at least once during each calendar year that the owner or operator removes additional hosphogypsum from the stack. EPA shall be notified at least 30 days prior to an emissions test so that EPA may, t its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted, then ie owner shall notify EPA and test as soon as conditions permit. Within ninety days after completion of a test, the wner or operator shall provide EPA with a report detailing the actions taken and the results of the radon-222 flux sting. Each such report shall include all of the information specified by § 61.203(b).

61.204 Distribution and use of phosphogypsum for outdoor agricultural purposes.

hosphogypsum may be lawfully removed from a stack and distributed in commerce for use in outdoor agricultural esearch and development and agricultural field use if each of the following requirements is satisfied:
a) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the verage radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as rovided by § 61.207.
b) The average radium-226 concentration at the location in the stack from which the phosphogypsum will be emoved, as determined pursuant to § 61.207, shall not exceed 10 pCi/g (4500 pCi/lb).
c) All phosphogypsum distributed in commerce for use pursuant to this section by the owner or operator of a hosphogypsum stack shall be accompanied by a certification document which conforms to the requirements of § 61.208(a).
d) Each distributor, retailer, or reseller who distributes phosphogypsum for use pursuant to this section shall prepare certification documents which conform to the requirements of § 61.208(b).
e) Use of phosphogypsum for indoor research and development in a laboratory must comply with § 61.205.

[57 FR 23317, June 3, 1992, as amended at 64 FR 5579, Feb. 3, 1999; 65 FR 61744, Oct. 17, 2000]

§ 61.205 Distribution and use of phosphogypsum for indoor research and development.

(a) Phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in indoor research and development activities, provided that it is accompanied at all times by certification documents which conform to the requirements of § 61.208. In addition, before distributing phosphogypsum to any person for use in indoor research and development activities, the owner or operator of a phosphogypsum stack shall obtain from that person written confirmation that the research facility will comply with all of the limitations set forth in paragraph (b) of this section.

) Any person who purchases and uses phosphogypsum for indoor research and development purposes shall omply with all of the following limitations. Any use of phosphogypsum for indoor research and development urposes not consistent with the limitations set forth in this section shall be construed as unauthorized distribution f phosphogypsum.
1) Each quantity of phosphogypsum purchased by a facility for a particular research and development activity hall be accompanied by certification documents which conform to the requirements of § 61.208.
2) No facility shall purchase or possess more than 3182 kg (7,000 pounds) of phosphogypsum for a particular ndoor research and development activity. The total quantity of all phosphogypsum at a facility, as determined by summing the individual quantities purchased or possessed for each individual research and development activity conducted by that facility, may exceed 3182 kg (7,000 pounds), provided that no single room in which research and development activities are conducted shall contain more than 3182 kg (7,000 pounds).
(3) Containers of phosphogypsum used in indoor research and development activities shall be labeled with the following warning: Caution: Phosphogypsum Contains Elevated Levels of Naturally Occurring Radioactivity.
(4) For each indoor research and development activity in which phosphogypsum is used, the facility shall maintain records which conform to the requirements of § 61.209(c).
(5) Indoor research and development activities must be performed in a controlled laboratory setting which the general public cannot enter except on an infrequent basis for tours of the facility. Uses of phosphogypsum for outdoor agricultural research and development and agricultural field use must comply with § 61.204.
(c) Phosphogypsum not intended for distribution in commerce may be lawfully removed from a stack by an owner or operator to perform laboratory analyses required by this subpart or any other quality control or quality assurance analyses associated with wet acid phosphorus production.

[57 FR 23317, June 3, 1992, as amended at 64 FR 5579, Feb. 3, 1999; 64 FR 53212, Oct. 1, 1999; 65 FR 61744, Oct. 17, 2000]

§ 61.206 Distribution and use of phosphogypsum for other purposes.

(a) Phosphogypsum may not be lawfully removed from a stack and distributed or used for any purpose not expressly specified in § 61.204 or § 61.205 without prior EPA approval.
(b) A request that EPA approve distribution and/or use of phosphogypsum for any other purpose must be submitted in writing and must contain the following information:
(1) The name and address of the person(s) making the request.
(2) A description of the proposed use, including any handling and processing that the phosphogypsum will undergo.
(3) The location of each facility, including suite and/or building number, street, city, county, state, and zip code, where any use, handling, or processing of the phosphogypsum will take place.
(4) The mailing address of each facility where any use, handling, or processing of the phosphogypsum will take place, if different from paragraph (b)(3) of this section.
(5) The quantity of phosphogypsum to be used by each facility.
(6) The average concentration of radium-226 in the phosphogypsum to be used.
(7) A description of any measures which will be taken to prevent the uncontrolled release of phosphogypsum into the environment.
(8) An estimate of the maximum individual risk, risk distribution, and incidence associated with the proposed use, including the ultimate disposition of the phosphogypsum or any product in which the phosphogypsum is incorporated.
(9) A description of the intended disposition of any unused phosphogypsum.
(10) Each request shall be signed and dated by a corporate officer or public official in charge of the facility.
(c) The Assistant Administrator for Air and Radiation may decide to grant a request that EPA approve distribution and/or use of phosphogypsum if he determines that the proposed distribution and/or use is at lease as protective of public health, in both the short term and the long term, as disposal of phosphogypsum in a stack or a mine.
(d) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, each of the following requirements shall be satisfied:
(1) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by § 61.207.
(2) All phosphogypsum distributed in commerce by the owner or operator of a phosphogypsum stack, or by a distributor, retailer, or reseller, or purchased by the end-user, shall be accompanied at all times by certification documents which conform to the requirements § 61.208.

) The end-user of the phosphogypsum shall maintain records which conform to the requirements of § 61.209(c).
) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution nd/ or use of phosphogypsum for a specified purpose, the Assistant Administrator may decide to impose dditional terms or conditions governing such distribution or use. In appropriate circumstances, the Assistant dministrator may also decide to waive or modify the recordkeeping requirements established by § 61.209(c).

61.207 Radium-226 sampling and measurement procedures.

a) Before removing phosphogypsum from a stack for distribution in commerce pursuant to § 61.204, or § 61.206, he owner or operator of a phosphogypsum stack shall measure the average radium-226 concentration at the ocation in the stack from which phosphogypsum will be removed. Measurements shall be performed for each uch location prior to the initial distribution in commerce of phosphogypsum removed from that location and at east once during each calendar year while distribution of phosphogypsum removed from the location continues.
1) A minimum of 30 phosphogypsum samples shall be taken at regularly spaced intervals across the surface of he location on the stack from which the phosphogypsum will be removed. Let n(1) represent the number of amples taken.
2) Measure the radium-226 concentration of each of the n(1) samples in accordance with the analytical rocedures described in 40 CFR part 61, appendix B, Method 114.

3) Calculate the mean, x(1), and the standard deviation, s(1), of the n(1) radium-226 concentrations:

$$\bar{x}(1) = \frac{\sum_{i=1}^{n(1)} x(i)}{n(1)},$$

$$s(1) = \sqrt{\frac{\sum_{i=1}^{n(1)} (x(i) - \bar{x}(1))^2}{n(1) - 1}},$$

Where $\bar{x}(1)$ and s(1) are expressed in pCi/g.

(4) Calculate the 95th percentile for the distribution, $\bar{x}[*]$, using the following equation:

$$\bar{x}[*] = \bar{x}(1) + 1.64 \left(\frac{s(1)}{\sqrt{n(1)}} \right)$$

Where $\bar{x}[*]$ is expressed in pCi/g.

(5) If the purpose for removing phosphogypsum from a stack is for distribution to commerce pursuant to § 61.206, the owner or operator of a phosphogypsum stack shall report the mean, standard deviation, 95th and sample size. If the purpose for removing phosphogypsum from a is for distribution to commerce pursuant to § 61.204, the additional sampling procedures set forth in (b) and (c) of this section shall apply.

(b)Based on the values for $\bar{x}(1)$ and $\bar{x}[*]$ calculated in paragraphs (a)(3) and (4) of this section, determine which of the following conditions will be met:

(1) If $\bar{x}(1) < 10$ pCi/g and $\bar{x}[*] <= 10$ pCi/g; phosphogypsum may be removed from this area of the stack for distribution in commerce pursuant to § 61.204.

(2) If $\bar{x}(1)$, < 10 pCi/g and $\bar{x}[*] > 10$ pCi/g, owner or operator may elect to low the procedures for further sampling set forth in paragraph (c) of this section:

(3). If x(1) >= 10 pCi/g; phosphogypsum shall not be removed from this area of stack for distribution in commerce pursuant to § 61.204.

:) If the owner or operator elects to conduct further sampling to determine if phosphogypsum can be removed 'om this area of the stack, the following procedure shall apply. The objective of the following procedure is to lemonstrate, with a 95% probability, that the phosphogypsum from this area of the stack has a radium-226 :oncentration no greater than 10 pCi/g. The procedure is iterative, the sample size may have to be increased more han one time; otherwise the phosphogypsum cannot be removed from this area of the stack for distribution to :ommerce pursuant to § 61.204.
1)(i) Solve the following equation for the total number of samples required:

$$n(2) = \left(\frac{1.645(1)}{10 - \bar{x}(1)} \right)^{[2]}$$

(ii) The sample size n(2) shall be rounded upwards to the next whole number. The number of additional samples needed is n(A) = n(2) - n(1).
(2) Obtain the necessary number of additional samples, n(A), which shall also be taken at regularly spaced intervals across the surface of the location on the stack from which phosphogypsum will be removed.
(3) Measure the radium-226 concentration of each of the n(A) additional samples in accordance with the analytical procedures described in 40 CFR part 61, appendix B, Method 114.
(4) Recalculate the mean and standard deviation of the entire set of n(2) radium-226 concentrations by joining this set of n(A) concentrations with the n(1) concentrations previously measured. Use the formulas in paragraph (a)(3) of this section, substituting the entire set of n(2) samples in place of the n(1) samples called for in paragraph (a)(3) of this section, thereby determining the mean, x (2), and standard deviation, s(2), for the entire set of n(2) concentrations.
(5) Repeat the procedure described in paragraph (a)(4) of this section, substituting the recalculated mean, x(2), for x (1), the recalculated standard deviation, s(2), for s(1), and total samplesize, n(2), for n(1).
(6) Repeat the procedure described in paragraph (b) of this section, substituting the recalculated mean, x(2) for x(1).

[As amended at 64 FR 5579, Feb. 3, 1999]

§ 61.208 Certification requirements.

(a)(1) The owner or operator of a stack from which phosphogypsum will be removed and distributed in commerce pursuant to § 61.204, § 61.205, or § 61.206 shall prepare a certification document for each quantity of phosphogypsum which is distributed in commerce which includes:
(i) The name and address of the owner or operator;
(ii) The name and address of the purchaser or recipient of the phosphogypsum;
(iii) Quantity of phosphogypsum, in kilograms or pounds, sold or transferred;
(iv) The date of sale or transfer;
(v) A description of the intended end-use for the phosphogypsum;
(vi) The average radium-226 concentration, in pCi/g (pCi/lb), of the phosphogypsum, as determined pursuant to § 61.207; and
(vii) The signature of the person who prepared the certification.
(2) The owner or operator shall retain the certification document for five years from the date of sale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. The owner or operator shall also provide a copy of the certification document to the purchaser or recipient.

(b)(1) Each distributor, retailer, or reseller who purchases or receives phosphogypsum for subsequent resale or transfer shall prepare a certification document for each quantity of phosphogypsum which is resold or transferred which includes:
(i) The name and address of the distributor, retailer, or reseller;
(ii) The name and address of the purchaser or recipient of the phosphogypsum;
(iii) The quantity (in pounds) of phosphogypsum resold or transferred;
(iv) The date of resale or transfer;

A description of the intended end-use for the phosphogypsum;
) A copy of each certification document which accompanied the phosphogypsum at the time it was purchased or
:eived by the distributor, retailer, or reseller; and
i) The signature of the person who prepared the certification.
) The distributor, retailer, or reseller shall retain the certification document for five years from the date of resale
transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized
presentative. For every resale or transfer of phosphogypsum to a person other than an agricultural end-user, the
stributor, retailer, or reseller shall also provide a copy of the certification document to the purchaser or
insferee.

s amended at 65 FR 61744, Oct. 17, 2000]

61.209 Required records.

) Each owner or operator of a phosphogypsum stack must maintain records for each stack documenting the
ocedure used to verify compliance with the flux standard in § 61.202, including all measurements, calculations,
id analytical methods on which input parameters were based. The required documentation shall be sufficient to
low an independent auditor to verify the correctness of the determination made concerning compliance of the
ack with flux standard.
) Each owner or operator of a phosphogypsum stack must maintain records documenting the procedure used to
etermine average radium-226 concentration pursuant to § 61.207, including all measurements, calculations, and
nalytical methods on which input parameters were based. The required documentation shall be sufficient to allow
n independent auditor to verify the accuracy of the radium-226 concentration.
) Each facility which uses phosphogypsum pursuant to § 61.205 or § 61.206 shall prepare records which include
ie following information:
1) The name and address of the person in charge of the activity involving use of phosphogypsum.
2) A description of each use of phosphogypsum, including the handling and processing that the phosphogypsum
nderwent.
3) The location of each site where each use of phosphogypsum occurred, including the suite and/or building
umber, street, city, county, state, and zip code.
4) The mailing address of each facility using phosphogypsum, if different from paragraph (c)(3) of this section.
5) The date of each use of phosphogypsum.
6) The quantity of phosphogypsum used.
7) The certified average concentration of radium-226 for the phosphogypsum which was used.
8) A description of all measures taken to prevent the uncontrolled release of phosphogypsum into the
nvironment.
9) A description of the disposition of any unused phosphogypsum.
d) These records shall be retained by the facility for at least five years from the date of use of the phosphogypsum
nd shall be produced for inspection upon request by the Administrator, or his authorized representative.

§ 61.210 Exemption from the reporting and testing requirements of 40 CFR 61.10.

All facilities designated under this subpart are exempt from the reporting requirements of 40 CFR 61.10.

40 CFR 63 Subpart AA - National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants

§ 63.600 Applicability.

(a) Except as provided in paragraphs (c), (d), and (e) of this section, the requirements of this subpart apply to the owner or operator of each phosphoric acid manufacturing plant.
(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs) emitted from the following new or existing affected sources at a phosphoric acid manufacturing plant:
(1) Each wet-process phosphoric acid process line. The requirements of this subpart apply to the following emission points which are components of a wet-process phosphoric acid process line: reactors, filters, evaporators, and hot wells;
(2) Each evaporative cooling tower at a phosphoric acid manufacturing plant;
(3) Each phosphate rock dryer located at a phosphoric acid manufacturing plant;

Each phosphate rock calciner located at a phosphoric acid manufacturing plant;
Each superphosphoric acid process line. The requirements of this subpart apply to the following emission nts which are components of a superphosphoric acid process line: evaporators, hot wells, acid sumps, and oling tanks; and
Each purified acid process line. The requirements of this subpart apply to the following emission points which e components of a purified phosphoric acid process line: solvent extraction process equipment, solvent stripping d recovery equipment, seal tanks, carbon treatment equipment, cooling towers, storage tanks, pumps and ocess piping.
) The requirements of this subpart do not apply to the owner or operator of a new or existing phosphoric acid anufacturing plant that is not a major source as defined in § 63.2.
) The provisions of this subpart do not apply to research and development facilities as defined in § 63.601.
) The emission limitations and operating parameter requirements of this subpart do not apply during periods of artup, shutdown, or malfunction, as those terms are defined in § 63.2, provided that the source is operated in ccordance with § 63.6(e)(1)(i) and the Startup, Shutdown, and Malfunction Plan submitted pursuant to § 3.6(e)(3).

As added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

63.601 Definitions.

erms used in this subpart are defined in the Clean Air Act, in § 63.2, or in this section as follows:
Equivalent P(2)O(5)feed" means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the rocess.
Evaporative cooling tower" means an open water recirculating device that uses fans or natural draft to draw or orce ambient air through the device to remove heat from process water by direct contact.
'Exceedance" means a departure from an indicator range established under this subpart, consistent with any averaging period specified for averaging the results of the monitoring.
'HAP metals" mean those metals and their compounds (in particulate or volatile form) that are included on the list of hazardous air pollutants in section 112 of the Clean Air Act. HAP metals include, but are not limited to: antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium expressed as particulate matter as measured by the methods and procedures in this subpart or an approved alternative method. For the purposes of this subpart, HAP metals are expressed as particulate matter as measured by 40 CFR part 60, appendix A, Method 5.
"Phosphate rock calciner" means the equipment used to remove moisture and organic matter from phosphate rock through direct or indirect heating.
"Phosphate rock dryer" means the equipment used to reduce the moisture content of phosphate rock through direct or indirect heating.
"Phosphate rock feed" means all material entering any phosphate rock dryer or phosphate rock calciner including moisture and extraneous material as well as the following ore materials: fluorapatite, hydroxylapatite, chlorapatite, and carbonateapatite.
"Purified phosphoric acid process line" means any process line which uses a HAP as a solvent in the separation of impurities from the product acid for the purposes of rendering that product suitable for industrial, manufacturing or food grade uses.
"Research and development facility" means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other off-site distribution, except in a de minimis manner.
"Superphosphoric acid process line" means any process line which concentrates wet-process phosphoric acid to 66 percent or greater P(2)O(5) content by weight.
"Total fluorides" means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR part 60, appendix A , Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to § 63.7(f).
"Wet process phosphoric acid process line" means any process line manufacturing phosphoric acid by reacting phosphate rock and acid.

[As added at 64 FR 31358, June 10, 1999]

§ 63.602 Standards for existing sources.

) Wet process phosphoric acid process line. On and after the date on which the performance test required to be nducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of s subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain tal fluorides in excess of 10.0 gram/metric ton of equivalent P(2)O(5) feed (0.020 lb/ton).
) Superphosphoric acid process line.
) Vacuum evaporation process. On and after the date on which the performance test required to be conducted / §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart ıall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides excess of 5.0 gram/metric ton of equivalent P(2)O(5) feed (0.010 lb/ton).
:) Submerged combustion process. On and after the date on which the performance test required to be ɔnducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of is subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain ıtal fluorides in excess of 100.0 gram/metric ton of equivalent P(2)O(5) feed (0.20 lb/ton).
:) Phosphate rock dryer. On or after the date on which the performance test required to be conducted by §§ 63.7 nd 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause ı be discharged into the atmosphere from any affected source any gases which contain particulate matter in xcess of 0.10750 kilogram/metric ton of phosphate rock feed (0.2150 lb/ton).
l) *Phosphate rock calciner.* On or after the date on which the performance test required to be conducted by §§ 3.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall ause to be discharged into the atmosphere from any affected source any gases which contain particulate matter ı excess of 0.1810 gram per dry standard cubic meter (g/dscm) (0.080 grains per dry standard cubic foot gr/dscf)).
e) Evaporative cooling tower. No owner or operator shall introduce into any evaporative cooling tower any liquid ffluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or perator of an affected source subject to this paragraph (e) must certify to the Administrator annually that he/she as complied with the requirements contained in this section.
f) Purified phosphoric acid process line.
1) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of subpart H of his part.
2) For any existing purified phosphoric acid process line, any of the following shall constitute a violation of this ubpart:
i) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of twenty parts per million for each product acid stream.
ii) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of thirty parts per nillion for each raffinate stream.
iii) A daily average chiller stack exit gas stream temperature in excess of fifty degrees Fahrenheit.

[As added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001, 67 FR 40818 June 13, 2002]

§ 63.603 Standards for new sources.

(a) Wet process phosphoric acid process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 6.750 gram/metric ton of equivalent P(2)O(5) feed (0.01350 lb/ton).
(b) Superphosphoric acid process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 4.350 gram/metric ton of equivalent P(2)O(5) feed (0.00870 lb/ton).
(c) Phosphate rock dryer. On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.030 kilogram/megagram of phosphate rock feed (0.060 lb/ton).
(d) Phosphate rock calciner. On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.0920 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)].

Evaporative cooling tower. No owner or operator shall introduce into any evaporative cooling tower any liquid
uent from any wet scrubbing device installed to control emissions from process equipment. Each owner or
rator of an affected source subject to this paragraph (e) must certify to the Administrator annually that he/she
complied with the requirements contained in this section.
Purified phosphoric acid process line.
Each owner or operator subject to the provisions of this subpart shall comply with the provisions of subpart H of
s part.
For any new purified phosphoric acid process line, any of the following shall constitute a violation of this
bpart:
A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of twenty parts
r million for each product acid stream.
) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of thirty parts per
illion for each raffinate stream.
) A daily average chiller stack exit gas stream temperature in excess of fifty degrees Fahrenheit.

s added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

63.604 Operating requirements.

n or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to
e completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of
ie pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the
llowable ranges established pursuant to the requirements of § 63.605(d)(1) or (2).

As added at 64 FR 31358, June 10, 1999, as added at 67 FR 40813, June 13, 2002]

; 63.605 Monitoring requirements.

a)(1) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric
acid process line subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring
system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed
material to the process. The monitoring system shall have an accuracy of ±5 percent over its operating range.
(2) Each owner or operator of a new or existing phosphate rock dryer or phosphate rock calciner subject to the
provisions of this subpart shall install, calibrate, maintain, and operate a monitoring system which can be used to
determine and permanently record either the mass flow of phosphorus-bearing feed material to the dryer or
calciner, or the mass flow of product from the dryer or calciner. The monitoring system shall have an accuracy of
±5 percent over its operating range. Since the emissions limits under §§ 63.602(c) and 63.603(c) for the
phosphate rock dryer are in the format of kilogram/megagram (lb/ton) of phosphate rock feed, during performance
testing required in § 63.606, the owner or operator that chooses to operate a monitoring system to determine and
permanently record the mass flow of product from the dryer must either simultaneously monitor the dryer feed rate
and dryer output rate, or monitor the dryer output rate and the dryer input and output moisture contents and
calculate the corresponding dryer input rate.
(b)(1) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric
acid process line subject to the provisions of this subpart shall maintain a daily record of equivalent P(2)O(5) feed
by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system
for measuring mass flowrate which meets the requirements of paragraph (a) of this section and then by
proceeding according to § 63.606(c)(3).
(2) Each owner or operator of a new or existing phosphate rock calciner or phosphate rock dryer subject to the
provisions of this subpart shall maintain a daily record of the following:
(i) For owners and operators that monitor the mass flow of phosphorus-bearing feed material to the dryer or
calciner, a daily record of phosphate rock feed by determining the total mass rate in metric ton/hour of
phosphorus-bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of
paragraph (a)(2) of this section.
(ii) For owners and operators that monitor the mass flow of product from the dryer or calciner, a daily record of
product by determining the total mass rate in metric ton/hour of product using a monitoring system for measuring
mass flowrate which meets the requirements of paragraph (a)(2) of this section.
(c) Each owner or operator of a new or existing wet-process phosphoric acid process line, superphosphoric acid
process line, phosphate rock dryer or phosphate rock calciner using a wet scrubbing emission control system shall

stall, calibrate, maintain, and operate the following monitoring systems:
) A monitoring system which continuously measures and permanently records the pressure drop across each rubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified / the manufacturer to have an accuracy of ± 5 percent over its operating range.
.) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing quid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall e certified by the manufacturer to have an accuracy of ± 5 percent over its operating range.
l) Following the date on which the performance test required in § 63.606 is completed, the owner or operator of a ew or existing affected source using a wet scrubbing emission control system and subject to emissions limitations or total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating arameters using the methodology of either paragraph (d)(1) or (2) of this section:
1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of ne scrubbing liquid to each scrubber in the process scrubbing system is ±20 percent of the baseline average alue determined as a requirement of § 63.606(c)(4), (d)(4), or (e)(2). The Administrator retains the right to reduce ne ±20 percent adjustment to the baseline average values of operating ranges in those instances where erformance test results indicate that a source's level of emissions is near the value of an applicable emissions tandard, but, in no instance shall the adjustment be reduced to less than ±10 percent. The owner or operator nust notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous ests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to §§ 63.607(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of he performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.
(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in § 63.606(c)(4), (d)(4), or (e)(2). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in § 63.606(c)(4), (d)(4), or (e)(2). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.
(e) Each owner or operator of a new or existing purified phosphoric acid process line shall:
(1) Install, calibrate, maintain, and operate a monitoring system which continuously measures and permanently records the stack gas exit temperature for each chiller stack.
(2) Measure and record the concentration of methyl isobutyl ketone in each product acid stream and each raffinate stream once daily.

[As added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

§ 63.606 Performance tests and compliance provisions.

(a)(1) On or before the applicable compliance date in § 63.609 and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the

erformance test according to the procedures in subpart A of this part and in this section.
2) As required by § 63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each new wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.
b) In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).
c) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line shall determine compliance with the applicable total fluorides standards in § 63.602 or § 63.603 as follows:
(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C(si)\, Q(sdi) \right) / (PK)$$

Where:
E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P(2)O(5) feed.
C(si) = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q(sdi) = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P(2)O(5) feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C(si)) and volumetric flow rate (Q(sdi)) of the effluent gas from each of the emission points. If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4. in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).
(3) The equivalent P(2)O(5) feed rate (P) shall be computed using the following equation:

$$P = M(p)\, R(p)$$

Where:
M(p) = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
R(p) = P(2)O(5) content, decimal fraction.

(i) The accountability system described in § 63.605(a) and (b) shall be used to determine the mass flow rate (M(p)) of the phosphorus-bearing feed.
(ii) The P(2)O(5) content (R(p)) of the feed shall be determined using as appropriate the following methods (incorporated by reference -- see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:
(A) Section IX, Methods of Analysis For Phosphate Rock, No. 1 Preparation of Sample.
(B) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P(2)O(5) or Ca(3)(PO(4))(2), Method A-Volumetric Method.
(C) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P(2)O(5) or Ca(3)(PO(4))(2), Method B-Gravimetric Quimociac Method.
(D) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P(2)O(5) or Ca(3)(PO(4))(2), Method C-Spectrophotometric Method.
(E) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P(2)O(5), Method A-Volumetric Method.
(F) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P(2)O(5), Method B-Gravimetric Quimociac Method.
(G) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P(2)O(5), Method C-Spectrophotometric Method.

) To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to termine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during ach of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average lues for the purposes of § 63.605(d)(1) or (2).
l) Each owner or operator of a new or existing phosphate rock dryer shall demonstrate compliance with the articulate matter standards in § 63.602 or § 63.603 as follows:
.) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

E = (C(s) Q(sd)) / (P K)

Vhere:
. = emission rate of particulate matter, kg/Mg (lb/ton) of phosphate rock feed.
:(s) = concentration of particulate matter, g/dscm (g/dscf).
)(sd) = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
' = phosphate rock feed rate, Mg/hr (ton/hr).
; = conversion factor, 1000 g/kg (453.6 g/lb).

2) Method 5 (40 CFR part 60, appendix A) shall be used to determine the particulate matter concentration (c(s)) nd volumetric flow rate (Q(sd)) of the effluent gas. The sampling time and sample volume for each run shall be at east 60 minutes and 0.85 dscm (30 dscf).
3) The system described in § 63.605(a) shall be used to determine the phosphate rock feed rate (P) for each run.
4) To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to letermine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and o determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during ach of the particulate matter runs. The arithmetic average of the one-hour averages determined during the three est runs shall be used as the baseline average values for the purposes of § 63.605(d)(1) or (2).
e) Each owner or operator of a new or existing phosphate rock calciner shall demonstrate compliance with the articulate matter standards in §§ 63.602 and 63.603 as follows:
1) Method 5 (40 CFR part 60, appendix A) shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 60 minutes and 1.70 dscm.
2) To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the particulate matter runs. The arithmetic average of the one-hour averages determined during the three test runs shall be used as the baseline average values for the purposes of § 63.605(d)(1) or (2).

[As added at 64 FR 31358, June 10, 1999]

§ 63.607 Notification, recordkeeping, and reporting requirements.

(a) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in § 63.9.
(b) Each owner or operator subject to the requirements of this subpart shall comply with the recordkeeping requirements in § 63.10.
(c) The owner or operator of an affected source shall comply with the reporting requirements specified in § 63.10 as follows:
(1) Performance test report. As required by § 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in § 63.9.
(2) Excess emissions report. As required by § 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in § 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in § 63.10.
(3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in § 63.10 rather than the full excess emissions report, unless required by the

dministrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 0th day following the end of the calendar half.
4) If the total duration of control system operating parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

As added at 64 FR 31358, June 10, 1999]

§ 63.608 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.
[As added at 64 FR 31358, June 10, 1999

§ 63.609 Compliance dates.

(a) Each owner or operator of an existing affected source at a phosphoric acid manufacturing plant shall achieve compliance with the requirements of this subpart no later than June 10, 2002. Notwithstanding the requirements of § 63.7(a)(2)(iii), each owner or operator of an existing source at an affected existing phosphoric acid manufacturing plant shall fulfill the applicable requirements of § 63.606 no later than June 10, 2002.
(b) Each owner or operator of a phosphoric acid manufacturing plant that commences construction or reconstruction of an affected source after December 27, 1996 shall achieve compliance with the requirements of this subpart upon startup of operations or by June 10, 1999, whichever is later.
[As added at 64 FR 31358, June 10, 1999]

§ 63.610 Exemption from new source performance standards.

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart T, subpart U or subpart NN. To be exempt, a source must have a current operating permit pursuant to Title V of the Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is effective upon the date that the owner or operator demonstrates to the Administrator that the requirements of §§ 63.604, 63.605 and 63.606 have been met.
[As added at 64 FR 31358, June 10, 1999]

Appendix A to Subpart AA of Part 63. -- Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart AA

[As added at 64 FR 31358, June 10, 1999]

Appendix A to Subpart BB of Part 63. -- Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	(Reserved).
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	(Reserved).
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes.	Some plants may be area sources.
63.1(c)(3)		No	(Reserved).
63.1(c)(4) and (5)		Yes.	
63.1(d)		No	(Reserved).
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes	Additional definitions in § 63.601.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	(Reserved).
63.4(a)(5)		Yes.	
63.4(b) and (c)		Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	(Reserved).
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	(Reserved).
63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also § 63.609.
63.6(b)(6)		No	(Reserved).
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes.	§ 63.609 specifies dates.
63.6(c)(2)		Yes.	

3.6(c)(3) and (4)		No	(Reserved).
3.6(c)(5)		Yes.	
3.6(d)		No	(Reserved).
3.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
3.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
3.6(f)	Compliance with Emission Standards	Yes	
3.6(g)	Alternative Standard	Yes.	
3.6(h)	Compliance with Opacity/VE Standards	No	Subpart AA does not include VE/ opacity standards.
3.6(i)(1) through (14)	Extension of Compliance	Yes.	
3.6(i)(15)		No	(Reserved).
3.6(i)(16)		Yes.	
3.6(j)	Exemption from Compliance	Yes.	
3.7(a)	Performance Test Requirements Applicability	Yes.	§ 63.609(a) applies rather than § 63.7(a)(2)(iii).
3.7(b)	Notification	Yes.	
3.7(c)	Quality Assurance/ Test Plan	Yes.	
3.7(d)	Testing Facilities	Yes.	
3.7(e)(1) - (e)(4)	Conduct of Tests	Yes.	§§ 63.604 and 63.605 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	
63.8(a)(2)		No	Subpart AA does not require CMS performance specifications.
63.8(a)(3)		No	(Reserved).
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/ Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart AA does not require COMS/ CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance		Subpart AA does not require CMS

	Evaluation	No	performance evaluations
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart AA does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2)		No	Subpart AA does not require COMS or CEMS
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements	Yes.	
	Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/ Opacity Test	No	Subpart AA does not include VE/ opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart AA does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	(Reserved).
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	(Reserved).
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart AA does not require CMS performance specifications.

63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	(Reserved).
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart AA does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart AA does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/ Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart AA does not require CEMS or CMS performance evaluations.
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	§ 63.606(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart AA does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes.	
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/ Confidentiality	Yes.	

[As added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

CFR 63 Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate tilizers Production Plants

3.620 Applicability.

Except as provided in paragraphs (c), (d), and (e) of this section, the requirements of this subpart apply to the ner or operator of each phosphate fertilizers production plant.
The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs) emitted from the owing new or existing affected sources at a phosphate fertilizers production plant:
Each diammonium and/or monoammonium phosphate process line. The requirements of this subpart apply to following emission points which are components of a diammonium and/or monoammonium phosphate process e: reactors, granulators, dryers, coolers, screens, and mills.
Each granular triple superphosphate process line. The requirements of this subpart apply to the following ission points which are components of a granular triple superphosphate process line: mixers, curing belts ens), reactors, granulators, dryers, coolers, screens, and mills.
Each granular triple superphosphate storage building. The requirements of this subpart apply to the following ission points which are components of a granular triple superphosphate storage building: storage or curing ildings, conveyors, elevators, screens and mills.
The requirements of this subpart do not apply to the owner or operator of a new or existing phosphate fertilizers oduction plant that is not a major source as defined in § 63.2.
The provisions of this subpart do not apply to research and development facilities as defined in § 63.621.
The emission limitations and operating parameter requirements of this subpart do not apply during periods of artup, shutdown, or malfunction, as those terms are defined in § 63.2, provided that the source is operated in ccordance with § 63.6(e)(1)(i) and the Startup, Shutdown, and Malfunction Plan submitted pursuant to § 3.6(e)(3).

s added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

63.621 Definitions.

erms used in this subpart are defined in the Clean Air Act, in § 63.2, or in this section as follows:
Diammonium and/or monoammonium phosphate process line" means any process line manufacturing granular iammonium and/or monoammonium phosphate by reacting ammonia with phosphoric acid which has been erived from or manufactured by reacting phosphate rock and acid.
Equivalent P(2)O(5) feed" means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the rocess.
Equivalent P(2)O(5) stored" means the quantity of phosphorus, expressed as phosphorus pentoxide, being cured r stored in the affected facility.
Exceedance" means a departure from an indicator range established for monitoring under this subpart, consistent ith any averaging period specified for averaging the results of the monitoring.
Fresh granular triple superphosphate" means granular triple superphosphate produced within the preceding 72 ours.
Granular triple superphosphate process line" means any process line, not including storage buildings, nanufacturing granular triple superphosphate by reacting phosphate rock with phosphoric acid.
Granular triple superphosphate storage building" means any building curing or storing fresh granular triple superphosphate.
Research and development facility" means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products or commercial sale in commerce or other off-site distribution, except in a de minimis manner.

Total fluorides" means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR part 60, appendix A, Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to § 63.7(f).
[As added at 64 FR 31358, June 10, 1999]

§ 63.622 Standards for existing sources.

(a) Diammonium and/or monoammonium phosphate process line. On and after the date on which the performance

test required to be conducted by §§ 63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 30 grams/metric ton of equivalent P(2)O(5) feed (0.060 lb/ton).
(b) Granular triple superphosphate process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 75 grams/metric ton of equivalent P(2)O(5) feed (0.150 lb/ton).
(c) Granular triple superphosphate storage building.
(1) On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 0.250 grams/hr/metric ton of equivalent P(2)O(5) stored (5.0 X 10[-4] lb/hr/ton of equivalent P(2)O(5) stored).
(2) No owner or operator subject to the provisions of this subpart shall ship fresh granular triple superphosphate from an affected facility.

[As added at 64 FR 31358, June 10, 1999]

§ 63.623 Standards for new sources.

(a) Diammonium and/or monoammonium phosphate process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 29.0 grams/metric ton of equivalent P(2)O(5) feed (0.0580 lb/ton).
(b) Granular triple superphosphate process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 61.50 grams/metric ton of equivalent P(2)O(5) feed (0.1230 lb/ton).
(c) Granular triple superphosphate storage building
(1) On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 0.250 grams/hr/metric ton of equivalent P(2)O(5) stored (5.0 X 10[-4] lb/hr/ton of equivalent P(2)O[5] stored).
(2) No owner or operator subject to the provisions of this subpart shall ship fresh granular triple superphosphate from an affected facility.

[As added at 64 FR 31358, June 10, 1999]

§ 63.624 Operating requirements.

On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of § 63.625(f)(1) or (2).

[As added at 64 FR 31358, June 10, 1999, as added at 67 FR 40813, June 13, 2002]
On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.626 is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of § 63.625(f)(1) or (2).

[As added at 64 FR 31358, June 10, 1999, as added at 67 FR 40813, June 13, 2002]
§ 63.625 Monitoring requirements.
(a) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ± 5 percent over its operating range.
(b) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line subject to the provisions of this subpart shall maintain a daily record of

ivalent P(2)O(5) feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed
ng a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a) of this
tion and then by proceeding according to § 63.626(c)(3).
Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line,
nular triple superphosphate process line, or granular triple superphosphate storage building using a wet
ubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:
A monitoring system which continuously measures and permanently records the pressure drop across each
ubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified
the manufacturer to have an accuracy of ± 5 percent over its operating range.
A monitoring system which continuously measures and permanently records the flow rate of the scrubbing
uid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall
certified by the manufacturer to have an accuracy of ± 5 percent over its operating range.
) The owner or operator of any granular triple superphosphate storage building subject to the provisions of this
bpart shall maintain an accurate account of granular triple superphosphate in storage to permit the
termination of the amount of equivalent P(2)O(5) stored.
)(1) Each owner or operator of a new or existing granular triple superphosphate storage building subject to the
ovisions of this subpart shall maintain a daily record of total equivalent P(2)O(5) stored by multiplying the
rcentage P(2)O(5) content, as determined by § 63.626(d)(3), times the total mass of granular triple
perphosphate stored.
) The owner or operator of any granular triple superphosphate storage building subject to the provisions of this
bpart shall develop for approval by the Administrator a site-specific methodology including sufficient
cordkeeping for the purposes of demonstrating compliance with § 63.622(c)(2) or § 63.623(c)(2), as applicable.
Following the date on which the performance test required in § 63.626 is completed, the owner or operator of a
w or existing affected source using a wet scrubbing emission control system and subject to emissions limitations
r total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating
arameters using the methodology of either paragraph (f)(1) or (2) of this section:
) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of
e scrubbing liquid to each scrubber in the process scrubbing system is ±20 percent of the baseline average
alue determined as a requirement of § 63.626(c)(4) or (d)(4). The Administrator retains the right to reduce the ±20
ercent adjustment to the baseline average values of operating ranges in those instances where performance test
sults indicate that a source's level of emissions is near the value of an applicable emissions standard, but in no
stance shall the adjustment be reduced to less than #10 percent. The owner or operator must notify the
dministrator of the baseline average value and must notify the Administrator each time that the baseline value is
hanged as a result of the most recent performance test. When a source using the methodology of this paragraph
retested, the owner or operator shall determine whether new allowable ranges of baseline average values will
e based upon the new performance test or (if the new performance test results are within the previously
stablished range) whether there will be no change in the operating parameters derived from previous tests. When
source using the methodology of this paragraph is retested and the performance test results are submitted to the
dministrator pursuant to §§ 63.627(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate
whether the operating range will be based on the new performance test or the previously established range. If the
dministrator has not denied approval of the new operating ranges within 30 days of submission of the
erformance test results, the new ranges shall be deemed approved and the new baseline value shall then be
effective on the 31st day following submission.
2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator
or approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the
scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this
subpart. Allowable ranges may be based upon baseline average values recorded during previous performance
tests using the test methods required in § 63.626(c)(4) or (d)(4). As an alternative, the owner or operator can
establish the allowable ranges using the results of performance tests conducted specifically for the purposes of
this paragraph using the test methods required in this subpart and established in the manner required in §
63.626(c)(4) or (d)(4). The source shall certify that the control devices and processes have not been modified
subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The
allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator
for approval. The owner or operator must request and obtain approval of the Administrator for changes to the
allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall
determine new allowable ranges of baseline average values unless the retest indicates no change in the operating
parameters outside the previously established ranges. If the Administrator has not denied approval of the new
operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed
approved and the new baseline value shall then be effective on the 31st day following submission.

; added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

63.626 Performance tests and compliance provisions.

)(1) On or before the applicable compliance date in § 63.630 and once per annum thereafter, each owner or perator of a phosphate fertilizers production plant subject to the provisions of this subpart shall conduct a erformance test to demonstrate compliance with the applicable emission standard for each existing diammonium nd/or monoammonium phosphate process line, granular triple superphosphate process line, or granular triple uperphosphate storage building. The owner or operator shall conduct the performance test according to the rocedures in subpart A of this part and in this section.

2) As required by § 63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphate fertilizers roduction plant subject to the provisions of this subpart shall conduct a performance test to demonstrate ompliance with the applicable emission standard for each new diammonium and/or monoammonium phosphate rocess line, granular triple superphosphate process line, or granular triple superphosphate storage building. The wner or operator shall conduct the performance test according to the procedures in subpart A of this part and in his section.

b) In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in his section, except as provided in § 63.7(f).

(c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line shall determine compliance with the applicable total fluorides standards in § 63.622 or § 63.623 as follows:

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C(si)\, Q(sdi) \right) / (PK)$$

Where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P(2)O(5) feed.
C(si) = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q(sdi) = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P(2)O(5) feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C(si)) and volumetric flow rate (Q(sdi)) of the effluent gas from each of the emission points. If Method 13 B is used, the fusion of the filtered material described in section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in sections 7.3.3 and 7.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).

(3) The equivalent P(2)O(5) feed rate (P) shall be computed using the following equation:

$$P = M(p)\, R(p)$$

Where:
M(p) = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
R(p) = P(2)O(5) content, decimal fraction.

(i) The accountability system described in § 63.625(a) and (b) shall be used to determine the mass flow rate (M(p)) of the phosphorus-bearing feed.

(ii) The P(2)O(5) content (R(p)) of the feed shall be determined using as appropriate the following methods (incorporated by reference – see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Methods of Analysis for Phosphate Rock, No. 3 Phosphorus – P(2)O(5) or Ca(3)(PO(4))(2),

thod A – Volumetric Method.
) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P(2)O(5) or Ca(3)(PO(4))(2), Method
- Gravimetric Quimociac Method.
) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P(2)O(5) or Ca3(PO(4))(2), Method C
Spectrophotometric Method.
) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and
nmonium Phosphates, No. 3 Total Phosphorus-P(2)O(5), Method A – Volumetric Method.
) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple Superphosphate, and
nmonium Phosphates, No. 3 Total Phosphorus-P(2)O(5), Method B – Gravimetric Quimociac Method.
i) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and
nmonium Phosphates, No. 3 Total Phosphorus-P(2)O(5), Method C – Spectrophotometric Method.
) To comply with § 63.625(f)(1) or (2), the owner or operator shall use the monitoring systems in § 63.625(c) to
etermine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and
determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during
ach of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average
alues for the purposes of § 63.625(f)(1) or (2).
l) Each owner or operator of a new or existing granular triple superphosphate storage building shall determine
ompliance with the applicable total fluorides standards in § 63.622 or § 63.623 as follows:
) The owner or operator shall conduct performance tests only when the following quantities of product are being
ured or stored in the facility.
) Total granular triple superphosphate is at least 10 percent of the building capacity, and
i) Fresh granular triple superphosphate is at least six percent of the total amount of granular triple
uperphosphate, or
ii) If the provision in paragraph (d)(1)(ii) of this section exceeds production capabilities for fresh granular triple
uperphosphate, fresh granular triple superphosphate is equal to at least 5 days maximum production.
2) In conducting the performance test, the owner or operator shall use as reference methods and procedures the
est methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except
s provided in § 63.7(f).
3) The owner or operator shall determine compliance with the total fluorides standard in §§ 63.622 and 63.623 as
ollows:
) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left(\sum_{i=1}^{N} C(si)\, Q(sdi) \right) / (PK)$$

Where:

E = emission rate of total fluorides, g/hr/metric ton (lb/hr/ton) of equivalent P(2)O(5) stored.
C(si) = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q(sdi) = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).
N = number of emission points in the affected facility.
P = equivalent P(2)O(5) stored, metric tons (tons).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(ii) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C(si)) and volumetric flow rate (Q(sdi)) of the effluent gas from each of the emission points. If Method 13B is used, the fusion of the filtered material described in section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in Sections 7.3.3 and 7.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).
(iii) The equivalent P(2)O(5) feed rate (P) shall be computed using the following equation:

$$P = M(p)\, R(p)$$

Where:

M(p) = amount of product in storage, metric ton (ton).
R(p) = P(2)O(5) content of product in storage, weight fraction.

v) The accountability system described in § 63.625(d) and (e) shall be used to determine the amount of product M(p)) in storage.
v) The P(2)O(5) content (R(p)) of the product stored shall be determined using as appropriate the following methods (incorporated by reference – see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By the Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:
A) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus – P(2)O(5), Method A – Volumetric Method.
B) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus – P(2)O(5), Method B – Gravimetric Quimociac Method.
C) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus – P(2)O(5), Method C – Spectrophotometric Method, or,
vi) The P(2)O(5) content (R(p)) of the product stored shall be determined using as appropriate the following methods (incorporated by reference – see 40 CFR 63.14) specified in the Official Methods of Analysis of AOAC International, sixteenth Edition, 1995, where applicable:
(A) AOAC Official Method 957.02 Phosphorus (Total) In Fertilizers, Preparation of Sample Solution.
(B) AOAC Official Method 929.01 Sampling of Solid Fertilizers.
(C) AOAC Official Method 929.02 Preparation of Fertilizer Sample.
(D) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method.
(E) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method.
(F) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method.
(G) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method.
(4) To comply with § 63.625(f)(1) or (2), the owner or operator shall use the monitoring systems described in § 63.625(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 63.625(f)(1) or (2).

[As added at 64 FR 31358, June 10, 1999]

§ 63.627 Notification, recordkeeping, and reporting requirements.

(a) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in § 63.9.
(b) Each owner or operator subject to the requirements of this subpart shall comply with the recordkeeping requirements in § 63.10.
(c) The owner or operator of an affected source shall comply with the reporting requirements specified in § 63.10 as follows:
(1) Performance test report. As required by § 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in § 63.9.
(2) Excess emissions report. As required by § 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in § 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in § 63.10.
(3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in § 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.
(4) If the total duration of control system operating parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

[As added at 64 FR 31358, June 10, 1999]

3.628 Applicability of general provisions.

: requirements of the general provisions in subpart A of this part that are applicable to the owner or operator
)ject to the requirements of this subpart are shown in appendix A to this subpart.

: added at 64 FR 31358, June 10, 1999]

:3.629 Miscellaneous requirements.

e Administrator retains the authority to approve site-specific test plans for uncontrolled granular triple perphosphate storage buildings developed pursuant to § 63.7(c)(2)(i).
s added at 64 FR 31358, June 10, 1999]

s added at 64 FR 31358, June 10, 1999]

53.630 Compliance dates.

) Each owner or operator of an existing affected source at a phosphate fertilizers production plant shall achieve
ımpliance with the requirements of this subpart no later than June 10, 2002. Notwithstanding the requirements of 63.7(a)(2)(iii), each owner or operator of an existing affected source at a phosphate fertilizers production plant
ıall fulfill the applicable requirements of § 63.626 no later than June 10, 2002.
) Each owner or operator of a phosphate fertilizers production plant that commences construction or construction of an affected source after December 27, 1996 shall achieve compliance with the requirements of is subpart upon startup of operations or by June 10, 1999, whichever is later.
) The owner or operator of any existing uncontrolled granular triple superphosphate storage building subject to e provisions of this subpart shall submit for approval by the Administrator a site-specific test plan for each such uilding according to the provisions of § 63.7(b)(2)(i) no later than June 12, 2000.

\s added at 64 FR 31358, June 10, 1999]

63.631 Exemption from new source performance standards.

ny affected source subject to the provisions of this subpart is exempted from any otherwise applicable new ource performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X. To be exempt, a ource must have a current operating permit pursuant to Title V of the Act and the source must be in compliance vith all requirements of this subpart. For each affected source, this exemption is effective upon the date that the wner or operator demonstrates to the Administrator that the requirements of §§ 63.624, 63.625 and 63.626 have)een met.

ENFLEX Note: The following table is wider than your screen. Please scroll right to see the entire table.

40 CFR citation	Requirement	Applies to subpart AA	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	(Reserved).
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	(Reserved).
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes.	Some plants may be area sources.
63.1(c)(3)		No	(Reserved).
63.1(c)(4) and (5)		Yes.	
63.1(d)		No	(Reserved).
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes	Additional definitions in § 63.621.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	(Reserved).
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/ Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	(Reserved).
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	(Reserved).
63.5(d)	Application for Approval of Construction/ Reconstruction	Yes.	
63.5(e)	Approval of Construction/		

63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also § 63.629.
63.6(b)(6)		No	(Reserved).
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes.	§ 63.629 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	(Reserved).
63.6(c)(5)		Yes.	
63.6(d)		No	(Reserved).
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart BB does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	(Reserved).
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements		§ 63.629(a) applies rather than § 63.7(a)(2)(iii).
63.7(b)	Applicability	Yes.	
63.7(c)	Notification	Yes.	
	Quality Assurance/ Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes.	§§ 63.624 and 63.625 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes	
63.8(a)(1)	Monitoring Requirements		

specifications.			
63.8(a)(3)		no	
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/ Maintenance	Yes.	
63.8(c)(5) through (8) does not require COMS/		No	Subpart BB CEMS or CMS
performance specifications.			
63.8(d)	Quality Control	Yes.	
63.8(e) does not require CMS	CMS Performance Evaluation	No	Subpart BB performance
evaluations			
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6) does not require CEMS.	Alternative to RATA Test	No	Subpart BB
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2) does not require COMS or		No	Subpart BB CEMS.
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements	Yes.	
	Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f) does not include VE/ opacity standards.	Notification of VE/ Opacity Test	No	Subpart BB opacity
63.9(g) does not require CMS evaluation, COMS, or	Additional CMS Notifications	No	Subpart BB performance CEMS.
63.9(h)(1) through (3)	Notification of		

	Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	(Reserved).
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart BB does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	(Reserved).
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart BB does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart BB does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/ Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart BB does not require CEMS or CMS performance evaluations.
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	§ 63.626(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart BB does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements		

	approval of site-plans for GTSP buildings is retained		specific test storage (see § 63.628(a)).
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/ Confidentiality	Yes.	

[As added at 64 FR 31358, June 10, 1999; 66 FR 65072, Dec. 17, 2001]

APPENDIX F

RESPONSE TO PUBLIC COMMENTS
TECHNICAL MEMORANDUM
J.R. SIMPLOT, DON SIDING PLANT

October 30, 2002

STATE OF IDAHO
DEPARTMENT OF ENVIRONMENTAL QUALITY
RESPONSE TO PUBLIC COMMENTS
ON DRAFT AIR QUALITY TIER I OPERATING PERMIT
FOR J.R. SIMPLOT DON SIDING PLANT

›duction

equired by IDAPA 58.01.01.364 of the *Rules for the Control of Air Pollution in Idaho* (*Rules*), the Idaho artment of Environmental Quality (Department) provided for public comment, including offering an opportunity for aring, on the Tier I Operating Permit proposed for the J.R. Simplot Don Siding Plant (Simplot). Public comment kages, which included the application materials, and draft permit and technical memorandum, were made ilable for public review at the Pocatello Public Library and the Department's Pocatello Regional Office and State ce in Boise. A copy of the draft permit and technical memorandum was also posted on the Department's Web . The public comment period was provided from August 31, 2002 to September 30, 2002, and a public hearing held on September 30, 2002, at the Council Chambers of Pocatello City Hall. Those comments regarding the air lity aspects of the draft permit are provided below with the Department's response immediately following.

blic Comments and Department Responses

mment 1: **Tier I Permit Reliance on Tier II Permit Requirements**

A comment submitted by the Idaho Conservation League indicates that it is inappropriate for the Tier I permit to rely upon requirements in the Tier II permit, because the Tier II permit has expired. The comment recommends that the Department draft a new Tier II permit or place new, stricter requirements in the Tier I permit.

esponse to 1: Simplot's updated Tier I operating permit application, dated June 29, 2000, also contained/served as a Tier II operating permit application. Upon review of the application, the Department determined that there were several issues with the application that required additional investigation. At the time the draft Tier I operating permit was released for public comment, the Department was still in the process of determining information necessary to develop an appropriate Tier II operating permit. Therefore, the compliance plan in the Tier I permit requires that Simplot submit a complete application, as well as any additional information requested by the Department, within 180 days of issuance of the Tier I permit.

IDAPA 58.01.01.404.04 states that the "...expiration of a permit will not affect the operation of stationary source or a facility during the administrative procedure period associated with the permit renewal process." Although the Tier II operating permit contained an expiration date that has passed, Section 404 of the *Rules for the Control of Air Pollution in Idaho* requires Simplot to comply with the terms of the permit. Therefore, these provisions are appropriate for inclusion in the Tier I permit.

Comment 2: **Failure to Improve Air Quality/ More Stringent Emissions Limits Needed**

A comment submitted by the Idaho Conservation League indicates that the Department has failed to use the Tier I permit to improve air quality in the airshed. A second comment from the Idaho Conservation League states that the Department "...needs to curtail facility emissions to ensure that the airshed's air quality is restored and protected...". Other comments submitted by the Idaho Conservation League state that emission limits are specifically needed on Emission Unit Groups No. 1, 2, 3, 5, 6, [7], 8, 9, 10, 12, 14, and 15.

esponse to 2: The Department is charged by the Environmental Protection and Health Act, Idaho Code § 39-10, to operate a program to issue air pollution permits in accordance with the *Rules*. The purpose of the air program is to safeguard Idaho's air quality by limiting and controlling the emissions of air contaminates from air pollution sources. The Department carefully evaluates facility plans for construction and/or operation of these sources to ensure all are capable of meeting applicable state and federal air quality standards. The draft permit has been developed in accordance with the *Rules* and satisfies the requirements therein.

The Tier I permitting process is not intended to establish any new applicable requirement (i.e., emissions rate limits) for a facility. In accordance with IDAPA 58.01.01.322.01-03, the Tier I permit contains only existing applicable requirements (refer to IDAPA 58.01.01.008.03 for a definition of "applicable requirement"). No changes have been made to the Tier I permit in regard to this comment.

For more information on the Tier I permitting process, please refer to the EPA memo entitled "White Paper for Streamlined Development of Part 70 Permit Applications", dated July 10, 1995.

omment 3: **Prevention of Significant Deterioration Applicability**

A comment submitted by the Idaho Conservation League states that the permits should contain Prevention of Significant Deterioration (PSD) provisions because of the volume of pollutants emitted from the facility.

esponse to 3: In accordance with IDAPA 58.01.01.006.36, Simplot is an existing facility with respect to the provisions of PSD, as it was constructed prior to the development of the PSD program. Although Simplot is subject to the requirements of PSD, due to a potential to emit regulated pollutants at rates greater than 250 tons per year, it does not appear that the facility has triggered applicable PSD requirements based on information currently available. The PSD provisions are part of the New Source Review program, and regulate new or modified sources. The Department administers the New Source Review program through the permit to construct (PTC) program, in accordance with IDAPA 58.01.01.200-228; the PSD provisions are contained in Section 205.

In order to trigger PSD, Simplot would have to initiate a major modification. A major modification is defined as any physical change or change in the method of operation that would result in a significant net emissions increase of any regulated air pollutant.

The compliance schedule in the Tier I permit requires Simplot to submit a Tier II operating permit within 180 days of issuance of a final Tier I permit. The Tier I permit compliance plan also requires the facility to submit additional information addressing any PTC concerns that are identified in the development of the Tier II operating permit application.

Comment 4: **Failure to Disclose Pollutants**

The Idaho Conservation League submitted a comment stating that the Department had failed to include a thorough breakdown of all pollutants emitted by the facility, and requests that the permits be amended to include this information.

Response to 4: IDAPA 58.01.01.321-336 contains requirements for the content of Tier I permits. These sections of the *Rules* do not require that the Department include an inventory of all pollutants emitted from the facility. No changes have been made to the Tier I permit in regard to this comment.

IDAPA 58.01.01.314.04 requires that the facility identify and describe all emissions of regulated pollutants from each emissions unit within the Tier I permit application. Simplot's

Tier I application was made available to the public during the public comment period, in the public comment package. Table 6 of this application includes an inventory of regulated pollutant emissions from each emissions unit.

Comment 5: **Toxic Air Pollutants Applicability**

The Idaho Conservation League submitted comments indicating that the Department has failed to limit emissions of toxic air pollutants (TAPs) in accordance with IDAPA 58.01.01.161, 585, and 586.

Response to 5: Refer to the response to Comment No. 2. The Tier I permit is not intended to establish any new applicable requirement (i.e., emissions rate limits) for a facility. In accordance with IDAPA 58.01.01.322.01-03, the Tier I permit contains only existing applicable requirements (refer to IDAPA 58.01.01.008.03 for a definition of "applicable requirement"). The Tier I permitting process is not intended as a forum for evaluating impacts or limiting the emissions rates of TAP emissions. No changes have been made to the Tier I permit in regard to this comment.

Comment 6: **Failure to Call for Best Available Retrofit Technology**

The Idaho Conservation League submitted a comment stating that the Department should redraft the permits to require Simplot to upgrade the abatement devices on each of its emission units. Other comments submitted by the Idaho Conservation League state that additional or improved control technologies are needed for Emission Unit Groups No. 1, 3, 4, 8, 9, 11, 12, 14, and 15.

Response to 6: Certain sources at the facility may be subject to Best Available Retrofit Technology (BART); however, there are no applicable requirements for BART at this time. Requirements may be included in Idaho's regional haze implementation plan when submitted to the U.S. Environmental Protection Agency (EPA). The requirements for BART are found under the regional haze rule in 40 CFR Part 51.308. The Tier I permit has not been changed in response to this comment.

Also refer to the response to Comment No. 2. The Tier I permitting process is not the appropriate forum for requiring additional or upgraded control equipment at the facility.

Comment 7: **Permit Duration**

A comment submitted by the Idaho Conservation League states that the Tier I permit does not contain an expiration date.

Response to 7: The draft Tier I permit submitted for public comment did not contain an expiration date because the permit has not been issued as a final permit. In accordance with IDAPA 58.01.01.322.13, the permit term will be a five-year period, beginning upon the date of issuance. At such time as the permit is issued as a final permit, the issuance date and expiration date will appear on the first page of the permit, and in headers throughout the permit.

Comment 8: **Hazardous Air Pollutant Re-opener**

The Idaho Conservation League submitted a comment in regard to the draft Tier I permit requesting "...a 're-opener clause' to allow the permit to be re-opened when DEQ does finally propagate additional [hazardous air pollutant] standards and guidelines."

sponse to 8: Permit Condition 15.15 in the draft Tier I General Provisions states:

> "The permittee shall comply with applicable requirements that become effective during the permit term on a timely basis."

No changes have been made to the Tier I permit in regard to this comment.

omment 9: **New Source Performance Standard(s) Applicability**

Comments submitted by the Idaho Conservation League in regard to Emission Unit Groups No. 5, 6, and 13, state that it is inappropriate for the Department to exempt these "...emission unit group[s] from the requirements of New Source Performance Standards. If it is determined that the protection of the public's health requires new source performance standards, [these] unit's permit should be re-opened and compliance re-addressed."

esponse to 9: These comments appear to imply that these sources are subject to New Source Performance Standards (NSPS) and that the Department has exempted these sources from these NSPS requirements. A review of NSPS requirements (refer to 40 CFR 60) indicates that these sources are not NSPS-affected, and a review of the draft Tier I permit and technical memorandum does not indicate that any NSPS exemption determination has been made by the Department. The comment does not cite any applicable sections or references within 40 CFR 60; therefore, no changes have been made to the Tier I permit as a result of this comment.

omment 10: **Scrubber Effluent from Emissions Unit Group No. 13**

A comment submitted by the Idaho Conservation League in regard to Emission Unit Group No. 13, states that it is inappropriate for scrubber water from the primary scrubber to be deposited in the gypsum stack. The comment further states that the Department needs to direct that the scrubber effluent be disposed of in a manner that prevents release to the environment.

Response to 10: The Department administrates different programs involving air, water, and waste that act collectively to control the release of contaminants to the environment. The Tier I operating permit is not intended as a vehicle to regulate all releases to the environment; it is intended to compile existing applicable requirements as they pertain to air quality.

The Tier I permit has incorporated existing emissions limits for releases of fluorides and particulate matter with an aerodynamic diameter of ten microns or less to the atmosphere (PM_{10}). The Tier I permit also requires Simplot to develop a method for demonstrating compliance with these emissions limits within 90 days of issuance of the Tier I permit. These provisions provide for protection of public health and the environment, with respect to air emissions. The Tier I permit has not been changed in response to this comment.

Comment 11: **Concern over Reopening Provisions**

A comment submitted by the Idaho Conservation League states:

> **"Reopening should not be limited to instances of cause. The promulgation of new standards by either EPA or DEQ should be cause for reopening."**

The comment is made in reference to General Provision 4 of the draft Tier I operating permit.

Response to 11: This provision is required to be in the Tier I permit by IDAPA 58.01.01.322.15(c), and is addressed fully in IDAPA 58.01.01.386. Also refer to the response to Comment No. 8. No changes have been made to the Tier I permit as a result of this comment.

Specific Comments from Simplot Regarding the Draft Tier I Permit

Comment 12: **Simplot submitted a comment requesting a change in the title of the Facility Contact in the cover page of the permit.**

Response to 12: The change has been made.

Comment 13: **Simplot submitted comments requesting that vegetation monitoring be changed to forage monitoring. Simplot states that forage monitoring is the correct term/requirement.**

Response to 13: No change was made. The requirements of Permit Conditions 2.24.2 and 2.25 in the draft permit (Permit Conditions 2.23.2 and 2.24 in the proposed permit) were taken from the existing Tier II operating permit issued on December 3, 1999. IDAPA 58.01.01.577.06 reads *"Primary and secondary air quality standards are those concentrations in the ambient air which result in a total fluoride content in vegetation used for feed and forage of no more than..."* [emphasis added]. It is vegetation monitoring. The vegetation is used for feed and forage.

Comment 14: **Simplot submitted comments requesting make corrections/changes to**

Permit:

- **Table 2.1, PM_{10} testing method in Table 2.2,**
- **Heat input rate of HPB&W boiler in Section 5, and Table 5.1,**
- **Section 6,**
- **Section 7, and Table 7.1 (updated Table 7.1 was provided by Simplot),**
- **Section 8, and Table 8.1 (updated Table 8.1 was provided by Simplot),**
- **Section 9, Table 9.1 (updated Table 9.1 was provided by Simplot), and Table 9.2, Permit Condition 9.1.2, Permit Condition 9.19.3**
- **Permit Condition 11.6**
- **Section 12, Table 12.1 (updated Table 12.1 was provided by Simplot), Permit Condition 12.5, Permit Condition 12.11, Permit Condition 12.12**
- **Permit Condition 13.2**
- **Permit Condition 14.9.1**
- **Section 15, and Table 15.1 (updated Table 15.1 was provided by Simplot), Permit Condition 15.11, Permit Condition 15.12**
- **Section 17, Table 17.1, and Permit Condition 17.11**

Technical memorandum:

- **Section 2**
- **Section 3, 5th bullet**
- **Section 4.4**
- **Section 6.5.4.2: should reference to Permit Condition 7.20 and 7.21**
- **Section 6.7.2.2, 6th bullet: specified "the scrubber" as "Entoleter scrubber"**
- **Section 6.8.1: dewatered cell not dried cell**
- **Section 6.10.1**
- **Section 6.10.2.1**
- **Section 6.15.3.2: annual performance test is not required by NSPS but by the Tier II operating permit.**

sponse to 14: The corrections/changes to these items in the tables and permit conditions have been made.

mment 15: **Simplot submitted comments requesting the addition of "State only" to the citation for Permit Condition 2.3.**

sponse to 15: The regulatory basis, as cited in the draft permit, is IDAPA 58.01.01.322.06 and 07, which requires that all Tier I permits contain sufficient monitoring and recordkeeping to ensure compliance with all the terms and conditions of the Tier I permit. If the applicable requirement does not contain such provisions, appropriate provisions must be added in the Tier I permit (known as "gap filling"). In this case, this requirement has been added to ensure compliance with Idaho's fugitive emissions rule (Permit Condition 2.1).

mment 16: **Simplot submitted comments requesting the omission of the requirement to "*maintain records of all fugitive dust complaints received*" from Permit Condition 2.3, and "*maintain records of all odor complaints*" from Permit Condition 2.6.**

sponse to 16: The regulatory basis, as cited in the draft permit, is IDAPA 58.01.01.322.06 and 07, which requires that all Tier I permits contain sufficient monitoring and recordkeeping to ensure compliance with all the terms and conditions of the Tier I permit. If the applicable requirement does not contain such provisions, appropriate provisions must be added in the Tier I permit (known as "gap filling"). In this case, this requirement has been added to ensure compliance with Idaho's fugitive emissions and odor rules.

mment 17: **Simplot submitted a comment requesting a change in Permit Condition 2.4.**

sponse to 17: No change was made. It is the intent of the permit to require Simplot to conduct fugitive observation for the entire facility property. The requirements were established under the authority of IDAPA 58.01.01.322.06, 07, and 08. Refer to Response to Comment No.'s 15 and 16.

mment 18: **Simplot submitted a comment requesting the addition of "State only" to the citation for Permit Condition 2.5.**

sponse to 18: The change has been made. The following has been added to the citation *"federally enforceable; however, this provision will become state-only enforceable upon removal from the [State Implementation Plan] SIP"*

mment 19: **Simplot submitted a comment requesting a change in Permit Condition 2.8.**

sponse to 19: No change was made. As discussed in the Technical Basis, Permit Condition 2.8 is intended for small sources that would generally not have any visible emissions. A specific visible emissions observation for a specific emissions unit has been included in each specific emissions unit section. The requirements were established under the authority of IDAPA 58.01.01.322.06, 07, and 08.

omment 20: **Simplot submitted a comment requesting a change in Permit Condition 2.9.**

esponse to 20: No change was made. Permit Condition 2.9 covers the requirements under IDAPA 58.01.01.130 –136. Permit Condition 2.9 includes the language "*The provisions of IDAPA 130-136 shall govern in the event of conflicts between the subsections of Permit Condition 2.9 and the regulations of IDAPA 58.01.01.130-136.*"

omment 21: **Simplot submitted a comment requesting that *"the specified test methods (in Table 2.2) should include the letter extensions used by EPA for alternate methods"*.**

:sponse to 21: No change was made. The footnote *"or Department-approved alternative in accordance with IDAPA 58.01.01.157"* gives the Department the authority to approve alternative methods. It is not appropriate to list all EPA's alternative methods without technical review for a specific emissions source. Should Simplot wish to use test methodology other that the methods specified in Table 2.2, such methodology should be detailed and justified in a test protocol submitted to the Department.

omment 22: **Simplot submitted a comment requesting to clarify who is going to receive the testing protocols if alternative test methods are selected.**

esponse to 22: As stated in Permit Condition 2.16, all correspondence should be addressed to the Pocatello Regional Office.

omment 23: **Simplot submitted a comment requesting a clarification of when the stack test is considered to be concluded and concerning that 30 days to submit compliance test report is too restrictive.**

lesponse to 23: The stack test is concluded when the testing is completed. In accordance with IDAPA 58.01.01.157.04, any source test performed to satisfy a requirement imposed by a state permit must be submitted to the Department within 30 days of completion of the test. If more than 30 days to submit a performance test is needed, Simplot may request the Department to grant an extension.

Comment 24: **Simplot submitted a comment requesting a change in the sentence in the Permit Condition 2.18.1 to make it easy to read.**

Response to 24: The changes have been made.

Comment 25: **Simplot submitted a comment indicating a double reporting requirement in the permit.**

Response to 25: Permit Conditions 2.16 and 2.18 have been combined. As a result, the numbering of Permit Conditions 2.19 – 2.25 has been changed to Permit Conditions 2.18 – 2.24.

Comment 26: **Simplot submitted comments requesting clarification of several terms used in the Permit Conditions 2.18.4 and 2.20.**

Response to 26: Changes have been made to these permit conditions to clarify the terms.

Comment 27: **Simplot submitted a comment indicating that Permit Condition 2.24.2 is too vague and recommending some changes to it.**

Response to 27: No change was made. Permit Condition 2.24.1 in the draft permit (2.23.1 in the proposed permit) was taken from the Special Studies section of the existing Tier II operating permit issued on December 3, 1999. The intent of the requirement was to document where each material flow goes and how that affects emissions. The Department recommends that Simplot address this issue in the Tier II operating permit application required by the compliance schedule of the Tier I permit.

Comment 28: **Simplot submitted a comment requesting removal of Section 3 from the permit because No. 100 and No. 200 Ammonia Plants are no longer in production and are being decommissioned; however, ammonia unloading facilities, ammonia storage facilities and emergency ammonia flare will remain.**

Simplot submitted a comment indicating that the Nitric Acid and Nitrogen Solutions Plants and Associated Handling Facilities are no longer in operating and will not

resume operations. Simplot requested that this section be omitted and that the Department make allowances for emissions credits.

esponse to 28: These sections will remain until such time as an updated Tier I permit application is submitted to the Department. The details of the changes shall be provided in accordance with IDAPA 58.01.01.314. Until all associated emissions units are physically removed, both plants have the potential to emit. Consequently, the applicable Tier II operating permit remains in effect. Should Simplot choose to bank emissions, the requirements of IDAPA 58.01.01.461 must be followed.

omment 29: **Simplot submitted a comment requesting specification of the edition of AP-42 in the Permit Conditions 3.9.2, 4.12.2, 5.20, 6.12, 7.21, 8.21, and 9.18.**

esponse to 29: Changes have been made to above permit conditions.

omment 30: **Simplot submitted a comment requesting the calculation of hourly emissions from the ammonia plant be deleted in Permit Condition 3.9.4.**

esponse to 30: No change was made. The ammonia plants have hourly emissions limits; therefore, the calculation of hourly emissions in Permit Condition 3.9.4 is used to demonstrate compliance.

omment 31: **Simplot submitted comments requesting a change in the following emissions limits because of the change of emissions factors in AP-42, a correction to the natural gas usage in granulation No. 2 process, or outdate evaluation methods for fugitive emissions**

- **Nitrogen oxides (NO_x) and carbon monoxide (CO) emissions limits in Table 4.2 and Permit Conditions 4.5 and 4.6;**
- **Particulate matter (PM), PM_{10}, and volatile organic compounds (VOC) emissions limits in Table 6.2 and Permit Conditions 6.1, 6.2, and 6.6;**
- **Sulfur dioxide (SO_2), NO_X, and CO emissions limits in Table 7.2 and Permit Conditions 7.4, 7.5, and 7.6**
- **SO_2, NO_X, and CO emissions limits in Table 8.2 and Permit Conditions 8.4 to 8.9**

esponse to 31: No changes were made. The Tier I permitting process does not have the authority to change any applicable requirements. These emissions limits were either taken from the existing Tier II operating permit issued December 3, 1999 or from the PTC, dated June 16, 1995. They are applicable requirements. Changes of these emissions limits will be accomplished through the facility wide Tier II operating permit that is required under the compliance schedule in the Tier I operating permit. A modeling analysis shall be conducted to ensure National Ambient Air Quality Standards (NAAQS) are met by the modified the emissions limits.

omment 32: **Simplot submitted a comment stating *"The permit limit is already more restrictive than the Process Weight limitation"* and requesting *"This analysis should be in the Tech(nical) Memo."***

esponse to 32: For Permit Condition 4.2, the draft technical memorandum already included this analysis. It is under Section 6.2.2.2. For Permit Condition 7.1.2, the following analysis has been added to Section 6.5.2.2 of the technical memorandum.

"Per information in Simplot's June 2000 Tier I/II application, the maximum hourly production rate is 54.2 tons/hour or 108,400 lb/hr for the dryer, the granulator, or the cooler. Based on a conservative assumption that the input rate of the dryer, the granulator, or the cooler is equal to its output rate, DEQ staff calculated the Process Weight limitation using equation in IDAPA 58.01.01.701, $E = 1.12(PW)^{0.27}$. Here PW (process weight) is 108,400 lb/hr. The calculated Process Weight limitation for the dryer, the granulator, or the cooler is 25.6 lb/hr. Currently, a permitted emissions limit applies to the emissions from the dryer stack, the granulator stack, and the cooler stack, which is 23.8 lb/hr. The permitted emissions limit is more stringent than Process Weight limitation."

Comment 33: **Simplot submitted comments requesting that Permit Condition 4.10, 4.15, and 4.16 be deleted.**

Response to 33: No changes were made. Simplot is using wet scrubbers to control the emissions from ammonia sulfate plant dryer and cooler to meet the emissions limits set in the operating permit. The Operation and Maintenance (O&M) manual for the scrubbers and scrubber pressure drop and liquid flows monitoring are required in the Permit Conditions 4.10, 4.15, and 4.16 to ensure proper operation of the scrubbers to ensure compliance with the emissions limits.

Comment 34: **Simplot submitted comments requesting that the requirement for direct sampling of PM_{10} emissions from emissions groups in sections 4, 8, and 12 be deleted. Simplot commented that *"this would be inconsistent with the method specified in the Tier 2 permit and the SIP."***

Response to 34: Changes have been made to Permit Conditions 4.11, 7.18.1, 8.18.1, 12.13.1, and 14.6.1. Permit Conditions 4.11.3, 7.18.4, 8.18.4, 12.13.4, 14.6.4 have been deleted. Simplot is located in Power County, which is classified as a moderate nonattainment area for PM_{10}. Direct sampling of PM_{10} emissions from the stacks in Section 4, 7, 8, 12, and 14 as specified in the permit are required to ensure the emissions groups in these sections meet the PM_{10} emissions limits in the permit. As recommended by EPA and proposed by Simplot under their comments on Table 2.2, for wet scrubber stacks, or stacks with entrained moisture droplets, PM_{10} will be the sum of the PM_{10} measured by EPA Method 5 (filterable) and PM_{10} measured by EPA Method 202 (condensable).

The existing Tier II operating permit specified a EPA Method 5 test to measure PM emissions, multiplied by 0.82 to determine PM_{10} emissions (e.g., $PM_{10} = 0.82 \times PM$). This is not an appropriate method to determine PM_{10} missions for the following reasons: 1) EPA Method 5 only measures filterable PM and does not capture condensable PM from emissions stacks; 2) there are no supporting documentation for the coefficient of 0.82 in the Department source file or in Simplot's applications.

Comment 35: **Simplot submitted a comment requesting recording requirements for ammonium sulfate plant production instead of production of the dryer and the cooler.**

Response to 35: This change has been made to Permit Condition 4.11.1.

Comment 36: **Simplot submitted comments requesting a change in the source test frequency for the ammonium sulfate plant, granulation No. 1 process, granulation No. 2 process, cooling tower, and No. 300 sulfuric acid plant.**

Simplot submitted a comment on Permit Condition 11.7 requesting that the requirement for an annual test be deleted because *"An annual soruce test is not required by 40 CFR 60 and is not necessary since the source has a [continuous emissions monitor] CEM.*

Simplot submitted a comment on Permit Condition 11.9 requesting "gas audits" be deleted if annual testing is required.

Simplot submitted comments requesting that the O&M manual requirement in Permit Conditions 16.9 and 16.13 be deleted because the sulfuric acid plant monitors SO_2 emissions by CEM.

Simplot submitted a comment requesting that the performance test requirement in Permit Condition 16.11.1 be removed.

Simplot submitted a comment requesting that the annual performance test requirement in Permit Condition 16.11.4 be removed.

esponse to 36: No change was made. All of these requirements were taken from the existing Tier II operating permit issued December 3, 1999, or existing PTCs. These are applicable requirements in accordance with IDAPA 58.01.01.008.03. The Tier I permitting process does not have the authority to remove or change applicable requirements. Changes of applicable requirements may be accomplished by modifying the original PTCs or Tier II operating permit and then incorporating the new requirements into Tier I operating permit.

For source testing, if the source tests show that the emissions are well below the emissions limits, the source test frequency may be modified to every 5 years, or to the frequency determined in accordance with Permit Condition 9.17.6, by modifying Tier II operating permit or PTC and then incorporating the new applicable requirements into the Tier I operating permit.

mment 37: **Simplot submitted comments requesting either: 1) deletion of Permit Conditions 4.13.1, 4.13.2, 4.14.1, and 4.14.2, or 2) correction of the emissions factors, as the factors specified are no longer consistent with the SIP inventory.**

sponse to 37: Changes have been made to these permit conditions. The PM_{10} fugitive emissions were estimated by multiplying 0.82 with PM fugitive emissions. This method is used in emissions inventory currently, which can be found in Simplot's June 20, 2000 Tier I/II application, Appendix D.

mment 38: **Simplot submitted a comment requesting removal of 40 CFR 60.44b(a)(1) from the reference/citation of Permit Condition 5.4 because 0.04 lb/MMBtu is the limit taken from an existing PTC issued September 20, 2000. The limit in 40 CFR 60.44b(a)(1) is 0.1 lb/MMBtu.**

esponse to 38: No change was made. Because the limit in the PTC is more stringent than that in 40 CFR 60.44b(a)(1), only the more stringent one was listed in the PTC. However, from regulatory point of view, the HPB&W boiler is subject to both emissions limits.

Comment 39: **Simplot submitted a comment requesting that "... *calculate the average emissions rates...*" be replaced with "...*calculate the average 30-day emission rates...*" in Permit Condition 5.15.**

Response to 39: The change has been made.

Comment 40: **Simplot submitted comments requesting incorporation of CFR requirements by reference rather than direct citation within the permit.**

Response to 40: No changes were made. Citing the CFR requirements in the permit or incorporating them by reference does not change the applicable requirements themselves.

Comment 41: **Simplot submitted a comment indicating that granulation No. 1 process was in operation before October 1, 1979 and the air pollution control equipment was replaced after 1979.**

Response to 41: Permit Condition 7.1.2 was changed to incorporate IDAPA 58.01.01.702 for granulation No. 1 process because it was in operation before October 1, 1979.

Comment 42: **Simplot submitted a comment requesting that the 3-hour average be changed to daily average due to CFR changes in Permit Conditions 7.10 and 8.10.**

Response to 42: The changes have been made.

Comment 43: **Simplot submitted comments requesting that citations for Permit Conditions 7.11, 7.12, 8.1 through 8.12, and 12.4 be cited as "State only".**

Response to 43: No changes were made. These permit conditions were taken from Tier II operating permit issued December 3, 1999. They are applicable requirements in accordance with IDAPA 58.01.01.008.03, and are federally enforceable. Changes to these emissions limits may be accomplished through the facility wide Tier II permitting process that is required under the compliance schedule in the Tier I operating permit.

Comment 44: **Simplot submitted comments requesting that Permit Conditions 7.13 and 8.13, in regard to monitoring scrubber pressure drops and liquid flows, and baghouse pressure drop, be deleted.**

Response to 44: No change was made. Simplot is using wet scrubbers and baghouses to control emissions from granulation No. 1 process and granulation No. 2 process to meet the emissions limits set in the operating permit. Monitoring scrubber pressure drops and liquid flows, and baghosue pressure drop is necessary to ensure proper operations of scrubbers and baghouse to ensure compliance with the emissions limits. These requirements are authorized by IDAPA 58.01.01.322.06.

Comment 45: **Simplot submitted a comment requesting removal of Permit Condition 9.24 because Granulation No. 3 process is not currently introducing ammonia into the process. If Simplot choose to introduce ammonia into the process in the future, some physical changes will be needed.**

Response to 45: Permit Condition 9.24 reads *"The permittee shall comply with 40 CFR 63, Subpart BB immediately whenever ammonia is introduced into the Granulation No. 3 plant to generate diammonium and/or monoammonium phosphate."* It clearly states that only when ammonia is introduced into the process to generate diammonium and/or monoammonium phosphate then 40 CFR 63, Subpart BB applies.

It is necessary to add this condition because Granulation No.3 process was capable of making diammonium and/or monoammonium phosphate in the past, and some physical changes will enable the process to make diammonium and/or monoammonium phosphate again, even though the process is currently making mono- or dicalcium phosphate products. Permit Condition 9.24 ensures Simplot complies with Maximum Achievable Control Technology standards if the change occurs. Therefore, Permit Condition 9.24 remains in the permit.

omment 46: **Simplot submitted a comment indicating that diatomaceous earth baghouse is an insignificant source of emissions.**

esponse to 46: To be qualified as an insignificant activity, the uncontrolled emissions from the emissions unit, not control device, shall be less than 10% of the significant level. The significant level for PM_{10} is 15 T/yr. Since the emissions prior to the baghouse are greater than 1.5 T/yr, this source does not qualify as an insignificant activity.

omment 47: **Simplot submitted a comment requesting the method used to determine source test frequency used in Permit Condition 9.17.6 apply to source test requirements in other sections of the permit.**

esponse to 47: A PTC was issued on December 12, 2001 allowing the change of Granulation No.3 process. The requirements in the PTC supersede that in the Tier II operating permit issued December 3, 1999. Therefore, the annual source test requirement in the Tier II operating permit does not apply anymore. The current Department source test frequency approach was used in the Permit Condition 9.17.3. The reason this approach was not used in other sections can be found in the response to Comment 36.

omment 48: **Simplot submitted a comment requesting replacement of "Within 60 days after startup..." with "Within 60 days after this permit is issued..." in Permit Condition 9.20.**

esponse to 48: No change was made. This permit condition was taken from PTC issued December 12, 2001. The O&M should have been developed after 60 days of the startup of the process.

omment 49: **Simplot submitted a comment requesting Permit Condition 9.21 be deleted.**

esponse to 49: No change was made. The permit condition was taken from PTC issued December 12, 2001. It is an applicable requirement in accordance with IDAPA 58.01.01.008.03.

omment 50: **Simplot submitted a comment indicating that Permit Conditions 10.1 and 10.2 are based on "...very specific assumptions which may not be altered without affecting the estimate/limit". Simplot indicated that these emissions should be "evaluated carefully".**

esponse to 50: These permit conditions set specific fluoride and PM_{10} emissions limits on the gypsum stack and were taken from the Tier II permit issued on December 3, 1999. The intent of the comment is not clear, and no changes have been made to the permit in response. Simplot is required to demonstrate compliance with these emissions limits by Permit Condition 10.9.

Comment 51: **Simplot submitted a comment requesting that Permit Condition 10.3 be deleted because the 40 CFR 61, Subpart R is not currently applicable.**

esponse to 51: 40 CFR 61.200 reads "The provisions of this subpart (40 CFR 61 Subpart R) apply to each owner or operator of a phosphogypsum stack, and to each person who owns, sells, distributes, or otherwise uses any quantity of phosphogypsum which is produced as a result of wet acid phosphorus production or is removed from any existing phosphogypsum stack." Simplot owns a phosphogypsum stack that exists as a result of wet acid phosphorus production. Therefore, the phosphogypsum stacks are subject to subpart of 40 CFR 61.

omment 52: **Simplot submitted a comment requesting Permit Conditions 10.4, 10.4.1 – 10.4.4 be delete because the gypsum stacks at Simplot are currently active.**

esponse to 52: No change was made. Permit Condition 10.4 clearly indicates that the requirements will apply only when a stack becomes an inactive stack.

omment 53: **Simplot submitted a comment requesting that the Department confirm that 40 CFR 61 deals with air emissions rather than the management of potentially toxic materials.**

Response to 53: 40 CFR 61 National Emission Standards for Hazardous Air Pollutants deals with hazardous air pollutants rather than the management of potentially toxic materials. The requirements under 40 CFR 61 are applicable requirements for Tier I operating permit in accordance with IDAPA 58.01.01.008.03. The citations for Permit Condition 10.5 –10.8 are corrected. The requirements in Permit Conditions 10.5 -10.8 were taken from 40 CFR 61, Subpart R.

Comment 54: **Simplot submitted a comment stating "*Ther(e) is no merit or basis to change the existing methods for estimating fugitive emissions for the gypsum stack. Fugitive emissions are difficult to quantify with any certainty. Past factors should be used.*"**

Response to 54: Change has been made to Permit Condition 10.9.

Comment 55: **Simplot submitted a comment requesting clarifications of the opacity standard required by 40 CFR 60 Subpart G in Permit Condition 11.3.**

Response to 55: A change has been made to Permit Condition 11.3. 40 CFR 60.11(c) reads *"The opacity standards set forth in this part (40 CFR 60) shall apply at all times except during periods of startup, shutdown, malfunction and as otherwise provided in the applicable standard."* Since the 10% opacity standard is the requirement taken from 40 CFR 60, EPA Method 9 will be used to determine compliance as that specified in 40 CFR 60.11(b).

Comment 56: **Simplot submitted a comment requesting monthly opacity observations.**

Response to 56: Permit Condition 11.8 has been changed. A tiered approach has been used to determine opacity observation frequency.

Comment 57: **Simplot submitted a comment requesting Permit Condition 12.14, regarding source testing total reduced sulfur (TRS), be deleted.**

esponse to 57: TRS emissions limits were taken from existing Tier II operating permit issued December 3, 1999. They are applicable requirements in accordance with IDAPA 58.01.01.008.03. Per information in Simplot's June 19, 2000 Tier I/II application Appendix D, source tests of TRS were conducted in 1994. The tested hourly rate was 67% of the permitted limit, and tested annually rate was 61% of permitted limit. Per current Department's source test frequency approach, one time source test will be required in one permit term if a source test result is 75% or less than the permitted limit. Since these source tests were conducted in 1994, the Tier I operating permit requires one-time source testing during this permit term. A minor change was made to Permit Condition 12.14. Simplot may modify TRS requirements through the facility-wide Tier II operating permit permitting process, which is required in compliance schedule in the Tier I operating permit.

omment 58: **Simplot submitted a comment indicating *"The heading of the section seems to include the non-contact cooling towers throughout the plant."***

esponse to 58: "Directed contact" has been added to the heading.

omment 59: **Simplot submitted a comment stating *"The PM limits contained in the Tier 2 permit are more restrictive and the PWR (process weight rate) is not required"* and requesting Permit Condition 14.1.2 be deleted.**

esponse to 59: No change was made to Permit Condition 14.1.2. There was not enough information in Simplot's June 29, 2000 Tier I/II application to allow Department staff to determine that the PM limits contained in the Tier 2 permit are more restrictive than PWR. In addition, PWR is an applicable requirement to this process in accordance with IDAPA 58.10.01.008.03. Therefore, no change to Permit Condition 14.1.2 was made at this time. A minor change has been made to Table 14.2. More discussions on this can be found in response to Comment 108.

omment 60: **Simplot submitted a comment stating "*in combination with the Tech Memo this section* [Permit Condition 14.4] *suggests that decant water is not returned to the cooling towers. This is a basic and critical error*"**

esponse to 60: Permit Condition 14.4 was taken from 40 CFR 63.602(e). It is an applicable requirement in accordance with IDAPA 58.01.01.008.03. The scrubber water is fed to the gypsum stacks. The decant water is the water pumped out from the gypsum stacks. The decant water shall not return to the cooling towers if it contains the scrubber water. The cooling tower is designed to cool down the process water. There is no apparent purpose in feeding decant water (which is at atmosphere temperature) to the cooling towers. Feeding decant water to the cooling tower will substantially increase fluoride emissions from this unit. No change was made to the permit or the technical memorandum.

Comment 61: **Simplot submitted a comment stating "*The mist eliminators are an integral part of the cooling tower. It is not necessary to create an enforceable requirement such as this* [Permit Condition 14.5]".**

Response to 61: In the existing Tier II operating permit it states "*Each cooling tower contains a mist eliminator which reduces water droplets. By reducing the water droplets, the emissions of particulate matter and fluoride are reduced.*" No change was made to the permit. However an explanation of the mist eliminators is added to the technical memorandum.

Comment 62: **Simplot submitted comments requesting deletion of Permit Conditions 14.6.1 and 14.6.4.**

Response to 62: As specified in Permit Condition 14.8, Permit Condition 14.6.1 was not intended to require source testing for all 8 cells within the first 12 months of, or 12 months prior to, issuance of

the permit. Permit Condition 14.6.1 has been modified to clarify the intent of the condition.

The correct PM_{10} testing method now is specified in Table 2.2. More discussion on this can be found in the response to Comment 34 (condensable). Simplot's comments on Permit Condition 14.6.4 imply that emissions limits in the existing Tier II operating permit issued December 3, 1999 may be exceeded using the correct PM_{10} testing method specified in Table 2.2. Emissions limit changes can be accomplished through the facility wide Tier II operating permitting process required under the compliance schedule in the Tier I operating permit. A modeling analysis shall be conducted to ensure that the NAAQS are met by the modified emissions limits. Permit Condition 14.6.1 has been changed. Permit Condition 14.6.4 has been deleted. More discussion on this can be found in Response to Comment 34.

mment 63: **Simplot submitted comments requesting that Permit Conditions 14.9.2 and 14.9.3 be deleted because Simplot disagrees this restrictive requirement and Fluoride concentration, etc. is not very clear to Simplot.**

sponse to 63: Permit Conditions 14.9.2 and 14.9.3 have been modified to clarify fluoride concentration, etc. in these permit conditions.

mment 64: **Simplot submitted a comment requesting that Permit Conditions 4.9 through 14.11 be deleted.**

sponse to 64: No change was made. Related discussion can be found in Section 6.12.3.2 of the technical memorandum.

mment 65: **Simplot submitted a comment requesting that Permit Condition 14.10 be deleted because the mist eliminators are an integral part of the cooling tower.**

sponse to 65: Permit Condition 14.10 has been deleted.

mment 66: **Simplot submitted a comment stating that Permit Condition 15.1.2 should be changed. "These emissions were historically fugitives. Simplot installed ventilation equipment to collect these emissions and they are not vented to the stack. Correct the reference to the emissions as fugitives."**

esponse to 66: The Tier I permitting process is not the appropriate forum for changing applicable requirements. Additionally, altering the nature of the emissions point may affect the ambient impact and/or applicable requirements for this unit. This requirement was taken directly from the Tier II permit dated December 3, 1999, and has not been changed in the Tier I permit. Changes to this emissions limit may be accomplished through the facility wide Tier II permitting process that is required under the compliance schedule in the Tier I operating permit.

omment 67: **Simplot submitted a comment stating that *"the absorber is a Simplot design not covered by any manufacturers specifications. Operation of the scrubber is described in Company Standard Operating Procedures (SOPs)."* The comment also requested this permit condition be deleted because an O&M manual was not required in the existing Tier II operating permit.**

esponse to 67: Changes have been made to this permit condition. SOPs were used in the permit instead of O&M manual. Simplot is using extended-absorber scrubbers and the Primary control scrubber to control the emissions from the acid oxidation process. SOPs for the extended-absorber scrubbers are required in the Permit Condition 15.5 to ensure proper operation of the scrubbers to ensure compliance with the emissions limits.

omment 68: **Simplot submitted a comment requesting source test requirements for NO_X and CO be**

because the sulfuric acid plant is not a source of fugitives.

This change has been incorporated because Permit Conditions 2.1 – 2.4 have already covered fugitive control at a facility-wide level.

Simplot submitted comments requesting NSPS notification requirements in Permit Condition 16.15 and one time notification requirements in Permit Conditions 17.12.1-17.12.6 be removed.

Per email from Bob Willey on October 23, 2002, these NSPS requirements have been fulfilled. Therefore, Permit Condition 16.15 was removed. Per Simplot's comments on page 19 of Appendix A, submitted on September 30, 2002, the notification requirements in Permit Conditions 17.12.1 - 17.12.6 were made in mid-1980. Permit Conditions 17.12.1-17.12.6 were removed.

Simplot submitted a comment requesting that Permit Conditions 16.16 and 17.8.1, regarding ground-level ambient SO_2 concentrations monitoring, be deleted.

No change was made. This requirement applies to Simplot's sulfuric acid plants –No. 100, 200, and 300 sulfuric acid plants. Over the years, No. 100 and 200 sulfuric acid plants were removed and No. 400 sulfuric acid plant was built. The SO_2 emissions limit for No. 400 is the same as that for combined SO_2 emissions from both No. 100 and 200 sulfuric acid plants. It is 4 pounds per ton (lb/T) of 100% sulfuric acid produced. No. 300 sulfuric acid plant was reconstructed to replace aging equipment in 2001. SIP requirement of ground-level ambient SO_2 concentrations monitoring still apply to Simplot's sulfuric acid plants; and furthermore, the Tier I permitting process does not have the authority to remove applicable requirements.

The modification of No. 300 sulfuric acid plant made this plant subject to NSPS (40 CFR 60 Subpart H). The new emissions limit 170 lb/hr was calculated based on a factor of 4 lb/T of 100% sulfuric acid produced, which is the same as that in the current existing Tier II operating permit issued December 3, 1999. However, this emissions limit is lower than that in 40 CFR 52.675(b)(3)(ii) for No. 300 plant back in 1970s, which was 2190 lb/hr. No information is readily available in Simplot's June 29, 2000 Tier I/II application regarding what was the actual SO_2 emissions reduction over the years with the change from No. 100 and 200 plants to No. 400 sulfuric acid plant and the reconstruction of No. 300 sulfuric plant.

Compliance Schedule – Table 18.1 – Compliance Schedule. Simplot does not believe a Tier II Operating Permit is required after issuance of the tier I Operating permit.

In accordance with IDAPA 58.01.01.322.10, a compliance schedule shall be included in the Tier I operating permit, because Simplot is not in compliance with applicable requirement for SO_2 ground level ambient monitoring specified in 40 CFR 52.675. Additionally, Simplot is not in compliance with the applicable requirement for fluoride in vegetation as specified in Tier II operating permit issued December 3, 1999. A facility-wide Tier II operating permit is required to address these compliance issues.

<u>ients from Simplot Regarding the Draft Tier I Permit Technical Memorandum</u>

Simplot submitted a comment requesting the addition of explanations Section 5.1.5

Explanations have been added to Section 5.1.5.

omment 86:	**Simplot submitted a comment on Sections 6.2.3.2**
esponse to 86:	See Comment 29 and Response to Comment 29.
omment 87:	**Simplot submitted a comment on Section 6.2.4.2**
esponse to 87:	See Comment 37 and Response to Comment 37.
omment 88:	**Simplot submitted a comment on Section 6.3.1**
esponse to 88:	See Comment 14 and Response to Comment 14.

mment 89: **Simplot submitted a comment on Section 6.3.1 stating *"When we permitted the boiler the vender provided a spec.(specification) sheet for the 120,000 pph boiler that suggested the unit was 100% thermally efficient. Gas feed rate of 145 Million BTU was cited. Believing this to be in error we permitted the unit based on 175 million BTU..."***

sponse to 89: The change has been made to the Summary Description of Emissions Unit Group 3 in the permit and Section 6.3.1 of the technical memorandum.

mment 90: **Simplot submitted comments requesting the replacement of Ton/hr production rates with Ton/day production rates in Sections 6.5.1 and 6.6.1**

sponse to 90: No changes were made. The maximum hourly rates were taken from Simplot's June 29, 2000 Tier I/II operating permit application.

mment 91: **Simplot submitted comments requesting clarification of the fact that PW in the process weight rate equations is the process throughput rather than the production rate in Sections 6.5.2.1, 6.6.2.1, and 6.7.2.**

sponse to 91: Clarification has been added to these sections of the technical memorandum. The definition of process weight can be found in IDAPA58.01.01.006.80.

omment 92: **Simplot submitted comments on Sections 6.5.2.2 and 6.6.2.2**

esponse to 92: See Comments 34 and 44, and respective responses to these comments.

omment 93: **Simplot submitted comments, in regard to Sections 6.5.5.2 and 6.6.5.2, concerning the consequence of using updated/corrected emission factors/emissions estimation methods to demonstrate compliance with emissions limits in the existing permits which were established using outdated methods/factors.**

esponse to 93: The outdated emissions factors and uncorrected emissions estimation methods need to be corrected. However, the Tier I permit process 1) can not change the applicable requirements (emissions limits), 2) does not conduct modeling analysis to ensure NAAQS compliance. Changes of these emissions limits may be accomplished through the facility wide Tier II operating permit that required under the compliance schedule section in the Tier I operating permit. The Tier II permitting process includes a modeling analysis to ensure NAAQS are met with any modified emissions limits.

Comment 94: **Simplot submitted comment requesting some changes to the process description in Section 6.7.1.**

Response to 94: Per information in the updated Table 9.1 provided by Simplot through an email on October 11, 2002, the "scrubber" in the 8th paragraph has been changed to the "baghouse". No other changes have been made to this section as the information was taken from Simplot's permit applications of exiting PTCs or operating permits.

Comment 95: **Simplot submitted a comment on the last paragraph of Section 6.7.4.2.**

Response to 95: See Comment 45 and Responses to Comment 45.

Comment 96: **Simplot submitted a comment on Section 6.7.5.2 indicating that the method to demonstrate compliance with NO_X, etc. emissions was not included.**

Response to 96: It was included in Permit Condition 9.18.

Comment 97: **Simplot submitted a comment on Section 6.7.6.2, proposing the east dry bulking station be treated as a separate emission unit group while issuing facility wide Tier II operating permit.**

Response to 97: The Department will make a determination on this issue when issuing facility wide Tier II operating permit.

Comment 98 **Simplot submitted a comment on Section 6.8.1 requesting the statement that decant water can not go to the reclaim cooling tower be deleted.**

Response to 98: No change was made. See discussions in Response to Comment 60.

Comment 99: **Simplot submitted a comment on Section 6.8.2.2.**

Response to 99: See Comment 54 and Response to Comment 54.

Comment 100: **Simplot submitted a comment on Section 6.8.2.2 requesting PM_{10} and PM emissions limits be deleted from the gypsum stack as they were developed in support of the SIP.**

Response to 100: Emissions limits can not be deleted because they are applicable requirement for Tier I operating permit. More discussion on this can be found in Response to Comment 36.

Comment 101: **Simplot submitted a comment on Section 6.9.**

Response to 101: See Comment 28 and Responses to Comment 28.

Comment 102: **Simplot submitted a comment on Section 6.10.2.2 requesting the last paragraph of Section 6.10.2.2 be deleted.**

Response to 102: No change was made.

Comment 103: **Simplot submitted a comment on Section 6.10.3.1 requesting TRS emissions limits from Phosphoric acid Plant No. 400. and the requirement for one time source test be deleted.**

Response to 103: Emissions limits can not be deleted because they are applicable requirement for Tier I operating permit. More discussion on this can be found in Response to Comment 43. Regarding to one time source test, see Response to Comment 57.

Comment 104: **Simplot submitted a comment Section 6.10.4.1 indicating that Phosphoric acid Plant No. 400 was modified in 1985-1986.**

Response to 104: Changes have made to Section 6.10.4.1 and Permit Condition 12.2.

Comment 105: **Simplot submitted comments on Sections 6.10.4.1, 6.12.2.2 requesting annual source testing requirement be deleted; however, if the testing requirement is retained, the PM and PM_{10} testing methods be specified.**

Response to 105: Annual source testing requirement was taken from the existing Tier II operating permit issued December 3, 1999. The Tier I permitting process is not intended to change applicable requirements. More discussion on this can been found in Response to Comment 34. Source testing methods for PM and PM_{10} emissions have been specified in Table 2.2 of the permit.

Comment 106: **Simplot submitted a comment on Section 6.12.2.1 stating "Applying PWR (process weight rate) to this source is unnecessary. Permitted PM emissions are much more stringent than PWR."**

Response to 106: Process weight rate is an applicable requirement to this process. It is included in the permit. Staff agrees with Simplot's comment. Changes to Section 6.12.2.2 of the technical memorandum and Table 14.2 have been made.

Comment 107: **Simplot submitted comments on Sections 6.12.2.2, and 6.12.2.3 regarding to cooling tower emissions estimation methods.**

Response to 107: See Comment 60 and Response to Comment 60.

Comment 108: **Simplot submitted a comment requesting the deletion of the 2nd and 3rd bullets of Section 6.12.4.2.**

Response to 108: The 2nd bullet was deleted. The 3rd bullet remains unchanged.

Comment 109: **Simplot submitted comments requesting that the reference to the cooling tower be removed.**

Response to 109: Evaporative cooling tower was defined in 40 CFR 63 Subpart AA. For clarification, cooling tower in Sections 6.13.2.1, and 6.13.2.2 has been replaced with "cooling tower (direct contact)".

Comment 110: **Simplot submitted comments on Sections 6.13.3.1, and 6.13.3.2 indicating *"The so-called fugitive sources have been ventilated to the recently installed scrubber and no longer exist."***

Response to 110: Changes have been made to these sections of the technical memorandum. However, the permit cannot be changed; refer to comment response 66. This issue needs to be addressed when issuing a facility wide Tier II operating permit.

Comment 111: **Simplot submitted comments on requesting the annual test requirements Sections 6.14.2.2, 6.14.3.2, 6.14.4.2, and 6.14.5.2 for SO_2, acid mist, ammonia and NO_X be deleted due to the use of CEMs**

Response to 111: No change was made. The CEMs required in 40 CFR 60 Subpart H only monitors SO_2 emissions from the stack. It does not monitor any other pollutants. The annual source test requirements for these pollutants were taken from existing PTC issued June 15, 2001. They are applicable requirements for Tier I operating permit in accordance with IDAPA 58.01.01.008.03. Tier I operating permit does not have the authority to change these requirements. Change of them can be accomplished through the PTC modification or the facility wide Tier II operating permit that required in compliance schedule section of the Tier I operating permit.

Comment 112 **Simplot submitted a comment requesting the addition of "*the requirement (monitoring ground level ambient SO_2 concentrations) will be changed as soon as DEQ submits the SO_2 SIP and it is approved*" to Section 6.14.9**

Response to 112: The change has been made. More discussions can be found in Response to Comment 75.

Comment 113: **Simplot submitted a comment indicating that the throughput limit in 2nd bullet of Section 6.15.2.2, and the 3rd bullet of Section 6.15.3.2 is for No. 300 sulfuric acid plant rather than No. 400 sulfuric acid plant.**

Response to 113: There is a production limit for No.400 sulfuric acid plant as well. It is in Permit Condition 17.5. "Throughput" has been changed to "production rate" in these sections.

Comment 114: **Simplot submitted a comment on Sections 6.15.6 indicating that 40 CFR 52.675 does not apply to No.400 sulfuric acid plant.**

Response to 114: See discussion in Response to Comment 75.

The following summarizes the key issues in response to Simplot's comments

Comment 115: **Simplot submitted a comment stating "*Processes are included in the draft permit that no longer exist at the plant.*"**

Simplot commented the length of the permit.

Response to 115: See discussions in the Responses to comments 28 and 40.

Comment 116: **Simplot submitted a comment stating "*In Numerous Instances throughout the Draft Permit IDEQ Failed to Reconcile Existing Requirements with New Compliance Assurance Conditions.*"**

Response to 116: See discussions in the Responses to Comments 25 and 32.

Comment 117: **Simplot submitted a comment stating "*The Draft Permit Imposes New Substantive Conditions on Simplot*"**

Response to 117: See discussions in the Responses to Comments 15, 16, 19, and 33.

Comment 118: **Simplot submitted a comment stating "*The Draft Permit includes Conditions that are Obsolete and Environmentally Insignificant*"**

Response to 118: See discussions in the Responses to Comments 37 and 75.

Comment 119: **Simplot submitted a comment stating "*Two Operating Permits is One Too Many*"**

Response to 119: Because of the compliance issue, the facility wide Tier II operating permit is required. See discussions in Response to Comment 76. In addition, as mentioned in Response to Comment 93, Tier I operating permit does not have the authority to change any applicable requirements. The required Tier II operating permit is the mechanism to address compliance issues, change of emissions limits, etc.

Comment 120: **Simplot submitted a comment stating "*The Format and Content of the Compliance Schedule is Inaccurate and Prejudicial*"**

Response to 120: See discussions in Response to Comment 76, the compliance schedule in the permit and Section 10 of the technical memorandum.

Comment 121: **Simplot submitted a comment stating "*Potential Future Requirements should be Removed from the Draft Permit*"**

Response to 121: See discussions in Response to Comments 45 and 51.

mment 122: **Simplot submitted a comment stating "*The Draft Permit contains Inappropriate Test Methods for PM_{10}*"**

sponse to 122: See discussions in Response to Comment 34. As mentioned in Simplot's September 30, 2002 public comments to the draft permit, "*Consequently, Simplot cannot be expected to demonstrate compliance with a revised set of test methods that differ from the emissions estimating method used to develop the emission limitation.*"

The Tier I permitting process does not have the authority to change any applicable requirements. These emissions limitations were either taken from the existing Tier II operating permit or existing PTCs. They are applicable requirements. However, changes of these emissions limits will be evaluated through the facility wide Tier II operating permit that is required under the compliance schedule in the Tier I operating permit. A modeling analysis shall be conducted to ensure NAAQS are met by the modified emissions limits.

omment 123: **Simplot submitted a comment stating "*The Draft Permit includes Emission Limits that should be revised based on Emission Factor Changes*"**

esponse to 123: See discussions in Response to Comment 31 and 93.

omment 124: **Simplot submitted a comment stating "*The Draft Permit contains Many Inaccurate References in Process Descriptions, Incorrect Numerical Values, and Typographical Errors*"**

esponse to 124: These errors have been corrected.

omment 125: **Simplot submitted a comment regarding "*Ambient Fluoride Study*"**

esponse to 125: See discussions in Response to Comment 27.

omment 126: **Simplot submitted a comment regarding "*Gypsum Stack Monitoring*"**

Response to 126: See discussions in Responses to Comments 50 and 53.

END OF COMMENTS